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SNOWMELT RUNOFF MODELING IN SIMULATION AND FORECASTING MODES WITH THE MARTINEC- RANGO MODEL

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Greenbelt, Maryland 20771

**SNOWMELT RUNOFF MODELING IN SIMULATION AND
FORECASTING MODES WITH THE MARTINEC-RANGO MODEL**

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16. Abstract <p>The Martinec-Rango snowmelt runoff model was applied to two watersheds in the Rio Grande basin, Colorado—the South Fork Rio Grande, a drainage encompassing 216 mi² without reservoirs or diversions and the Rio Grande above Del Norte, a drainage encompassing 1,320 mi² without major reservoirs. The model was successfully applied to both watersheds when run in a simulation mode for the period 1973-79. This period included both high and low runoff seasons.</p> <p>A second aspect of the study focused on adapting the model to run in a forecast mode. Central to this effort was the need to develop a technique to forecast the shape of the snow-cover depletion curves between satellite data points. Four separate approaches were investigated—simple linear estimation, multiple regression, parabolic-exponential, and type curve. Only the parabolic-exponential and type curve methods were run on the South Fork and Rio Grande watersheds for the 1980 runoff season using satellite snow-cover updates when available. Although reasonable forecasts were obtained in certain situations, neither method seemed ready for truly operational forecasts, possibly due to a large amount of estimated climatic data for one or two primary base stations during the 1980 season. Further investigations are recommended before adoption of any standardized snow-cover prediction technique.</p>			
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CONVERSION FACTORS

To Convert	To	Multiply By
feet (ft)	meters (m)	0.305
inches (in)	centimeters (cm)	2.54
miles (mi)	kilometers (km)	1.609
miles ²	kilometers ²	2.590
°F	°C	$^{\circ}\text{C} = \frac{^{\circ}\text{F} - 32}{1.8}$
feet ³ /sec	meters ³ /sec	0.02832
inches/°F . day	cm/°C . day	4.572

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INTRODUCTION

This report is a compilation of research designed to evaluate the effectiveness of the Martinec-Rango model in large watershed applications. In addition, research was conducted into the application of the Martinec-Rango model to real time forecasting situations. The model as described by Rango and Martinec (1979) may be stated in the following form:

$$Q_{n+1} = c_n \left(\frac{[a_{An}(T_A) S_{An} + P_{An}] A_A \cdot \frac{(5280)^2}{12}}{86400} + \frac{[a_{Bn}(T_B) S_{Bn} + P_{Bn}] A_B \cdot \frac{(5280)^2}{12}}{86400} + \frac{[a_{Cn}(T_C) S_{Cn} + P_{Cn}] A_C \cdot \frac{(5280)^2}{12}}{86400} \right) (1 - k_{n+1}) + Q_n k_{n+1} \quad (2)$$

where

Q	is the average daily discharge [$\text{ft}^3 \text{s}^{-1}$]
c_n	is the runoff coefficient
a_n	is the degree-day factor [$\text{in.} \cdot ^\circ\text{F}^{-1} \cdot \text{d}^{-1}$]
T_A	is the calculated number of degree-days in Zone A
S_{An}	is the snow coverage (100% = 1.0)
P_n	is the precipitation contributing to runoff [in]
A	is the area [mi^2]
k_n	is the recession coefficient
n	is an index referring to the sequence of days
A, B, C	as subscripts refer to the three elevation zones
$\frac{(5280)^2}{12}$	converts $\text{in} \cdot \text{mi}^2$ per day to $\text{ft}^3 \text{s}^{-1}$
$\frac{12}{86400}$	

Martinec and Rango (1979) documented results applying a relatively simple deterministic model for making snowmelt runoff using satellite derived snow cover as a critical input parameter. The so-called Martinec-Rango model appeared to be promising as a potential forecast tool but it was believed that further testing on other watersheds was desirable to define the applicability of the model to various size and shape watersheds. In response to this need the USDA Soil Conservation Service and Resource Consultants, Inc., entered into a cooperative agreement with the National Aeronautics and Space Administration (NASA) to conduct further trials on the model's performance and make modifications as necessary. Two watersheds in southwestern Colorado were chosen as test watersheds. These were the

South Fork of the Rio Grande River and the Conejos River. The results of these investigations have been reported by Shafer et al. (1981a) and by Jones et al. (1981). The results of the simulation showed the model capable of explaining an average of 89 percent of the observed streamflow variation on the South Fork of the Rio Grande and 87 percent on the Conejos and for the period 1973-79. Streamflow simulations were run for the April 1-September 30 interval.

As an outgrowth of these previous investigations, further testing of the model was conducted on a large watershed (greater than 1,000 square miles). In addition, various techniques were studied to develop a real time forecasting version of the Martinec-Rango model. This report summarizes the results of these further studies.

These additional studies on the Martinec-Rango model were conducted by the USDA Soil Conservation Service and Resource Consultants, Inc., in a cooperative agreement with NASA. The first part of the report discusses the results of application of the model on the Rio Grande watershed above Del Norte in southwestern Colorado. This watershed encompasses the South Fork of the Rio Grande which was studied previously by Shafer et al. (1981a).

The second part of this report deals with initial attempts at development of a real time predictive mode version of the Martinec-Rango model. The purpose of this development is to utilize this model to predict mean daily flows due to snowmelt runoff from mountainous watersheds. Primarily, this portion of the study focused on development of methods to predict the snow-cover depletion curves for operation of the predictive mode model. Recommendations for the implementation of this predictive mode model are made.

The computer listing for the Martinec-Rango model as applied in this report is shown in Appendix A.

LARGE BASIN STUDY RIO GRANDE RIVER BASIN ABOVE DEL NORTE

The Rio Grande has its headwaters in the San Juan Mountains of southwest Colorado (Fig. 1). This watershed was studied above the stream-gaging station just a few miles west of the town of Del Norte, Colorado. Within the boundaries of this watershed is the South Fork of the Rio Grande in which the snowmelt runoff was previously simulated using the Martinec-Rango model (Shafer et al., 1981a).

WATERSHED DESCRIPTION

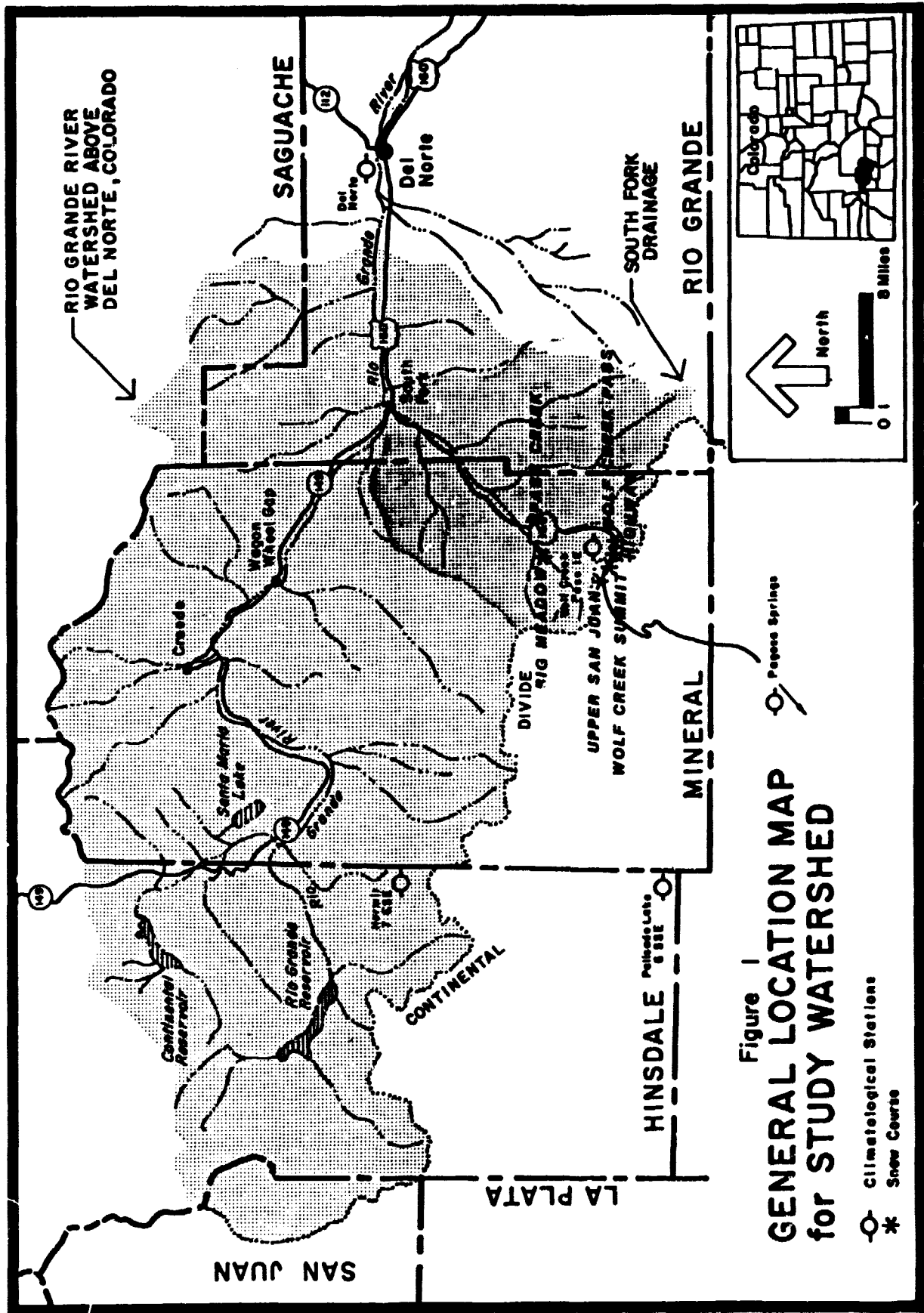
The watershed of the Rio Grande River above the Del Norte gage has an area of approximately 1,320 square miles. Its elevation ranges from 7,980 feet at the stream gage to 13,830 feet at the highest point. Fig. 2 shows the limits of the watershed above the gaging station and also shows the elevation contours and the division of the watershed into three elevation zones chosen roughly to correspond to the mixed conifer-aspen band (Zone A), the spruce-fir band (Zone B) and the area above timberline (Zone C).

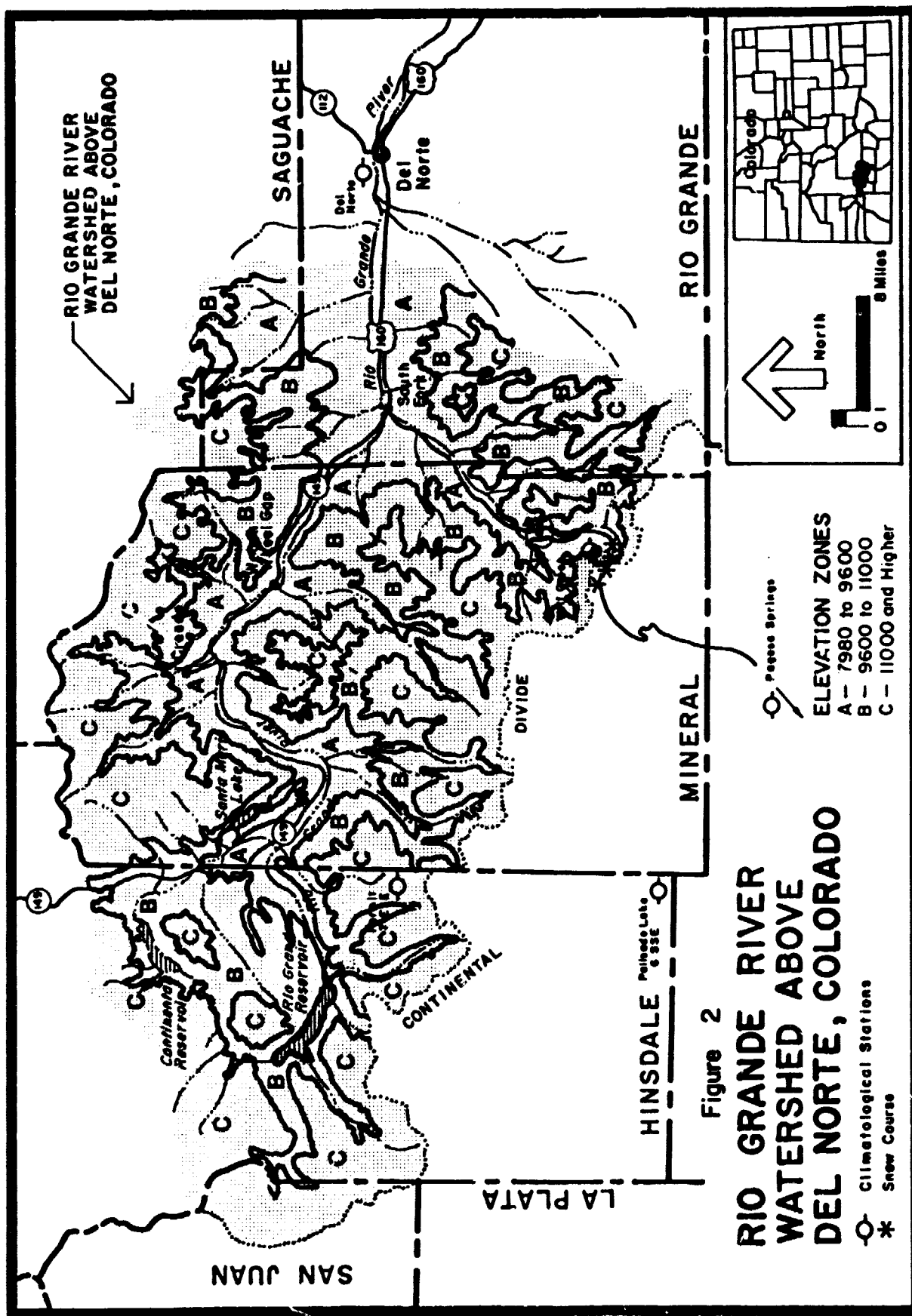
Fig. 3 is a graphical hypsometric analysis of the Rio Grande above Del Norte basin. Fig. 4 shows the same information for the South Fork of the Rio Grande watershed. Mean elevations of each zone are shown on this figure. Table 1 presents a numerical synopsis of the hypsometric curve presented in Fig. 3.

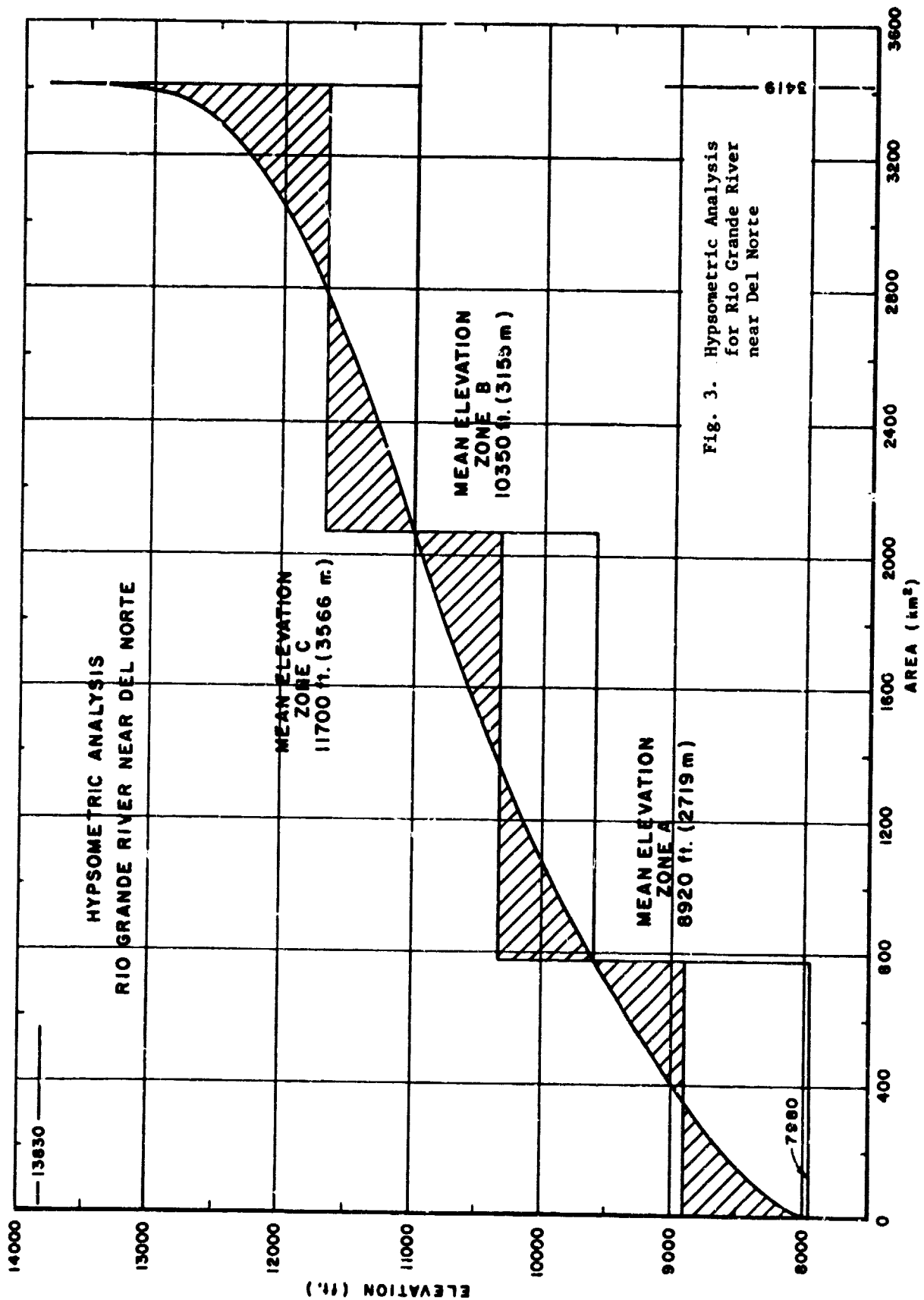
Table 1
Area-Elevation Statistics
Rio Grande Watershed above Del Norte

Zone	Rio Grande		
	Elevation Range (ft.)	Area (mi ²)	% of watershed
A	7,980 - 9,600	301	22.8
B	9,600 - 11,000	496	37.6
C	11,000 - 13,380	523	39.6
Total		1,320	100

This watershed is typical of the region where a permanent snowpack begins accumulating in late October and generally reaches a seasonal maximum near the first of April. During April snowpack depletion is normally experienced at lower elevations below 9,500 feet while accumulation may continue at middle and high elevations up to the first of May. Winter snowpack accumulation is a gradual process which results from many snowfall events as contrasted with areas where a few major storms contribute the bulk of the permanent snowpack. Snowpacks in both watersheds are sub-freezing throughout most of the winter. This heat deficit must be made up and the snowpack brought to isothermal conditions in the spring before appreciable snowmelt runoff can begin.







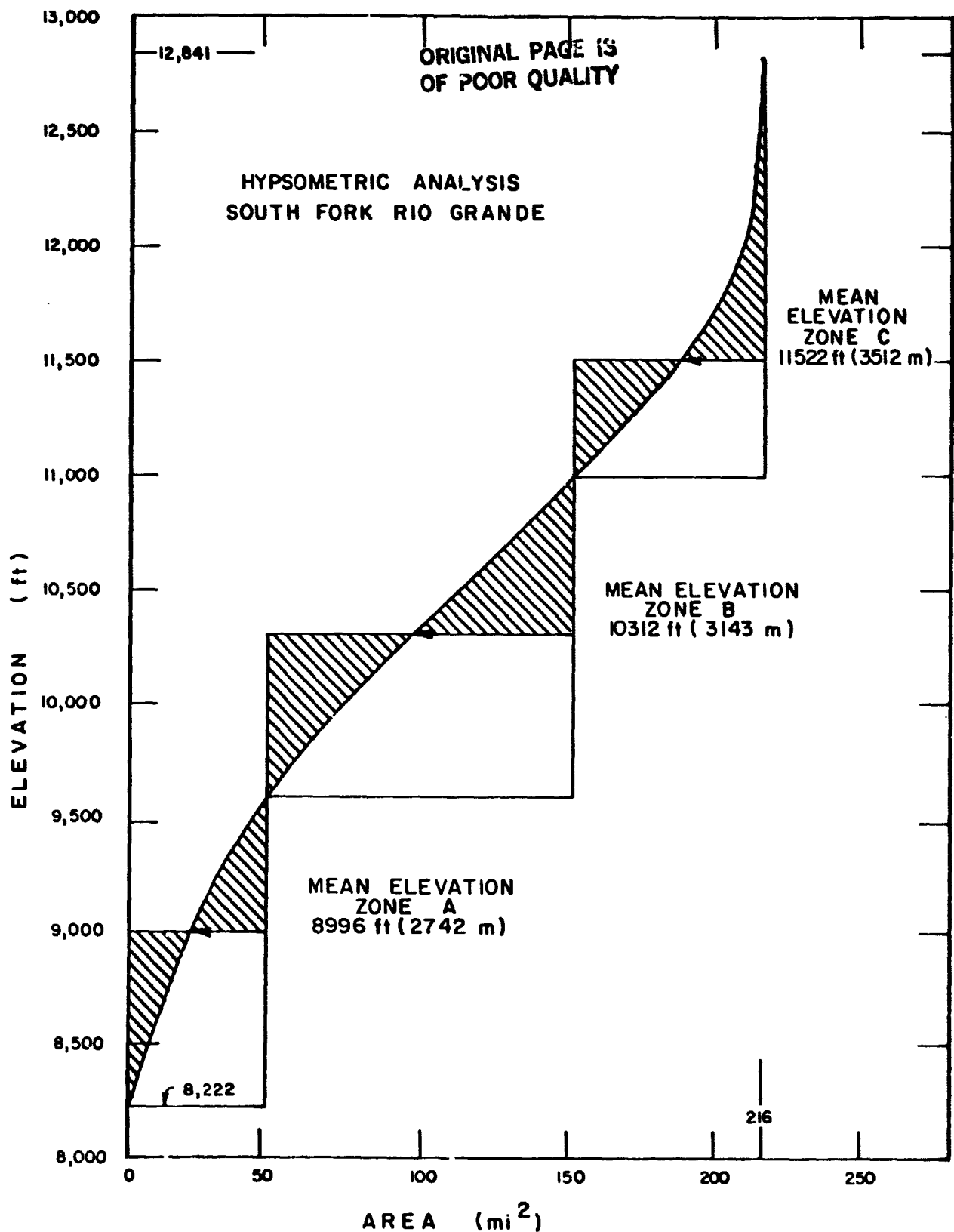


Figure 4 - Hypsometric Analysis for South Fork Rio Grande
at South Fork, Colorado

Snowmelt runoff produces 75 to 85 percent of the average annual flow in the watershed. This streamflow from melting snowpacks is the lifeblood of the Rio Grande valley, without which agricultural production would be virtually nonexistent. It is this dependence on the snowmelt runoff entering the Rio Grande valley that makes the accurate and timely forecasting of its quantity and temporal distribution so important. Critical management decisions allocating the anticipated runoff must be made before and during the major runoff period. These decisions are covered by statutes and regulations spelled out in state law, interstate, and international agreements.

The location of pertinent climatological stations, and snow courses in and near the study watersheds are shown in Fig. 2. Climatological records for each of the stations for the April-September period is presented in Appendix B.

Streamflow records for the Del Norte and South Fork gages adjusted for upstream reservoirs (April-September for 1973-80) are given in Appendix C. These records show that during this 8-year period wide extremes in runoff were observed. A frequency analysis of streamflow reveals the drought conditions which prevailed during 1977 had a recurrence interval of nearly 100 years. On the other hand, 1979 was an extremely heavy snowpack year which produced runoff that would only be expected to occur once in every 20 years. Other years fell somewhere between these two extremes. It is fortunate for the purposes of this investigation that such diverse hydrologic conditions were experienced in so short a span of time. Due to this diversity it was possible to exercise the model thoroughly and test its suitability in simulating widely disparate snowmelt runoff occurrences. This watershed contains three reservoirs of hydrologic importance--Rio Grande, Santa Maria, and Continental. The effect of these reservoirs on the observed flow at the Del Norte gage was computed according to analysis of reservoir releases and travel times. A short computer program used to adjust the Del Norte observed flow to an adjusted "free natural flow" is also given in Appendix C.

STREAMFLOW LAG CHARACTERISTICS

An analysis of the daily hydrographs for this watershed was made in an effort to evaluate the time it took meltwater to reach the South Fork and Del Norte stream gages. Fig. 5 shows a segment of the daily hydrograph record for the South Fork Rio Grande near the time of the seasonal peak in early June. Fig. 6 shows a similar segment at the end of the snowmelt season in early July. During high flow periods approximately 70 percent of the flow of day n is a result of melt on the previous day with only about 30 percent coming from day n 's generated melt. These values were obtained by planimetering the areas under the daily hydrograph. In July the travel time for meltwater to reach the gage is longer due to the recession of the snowpack line to a higher elevation. At the lower stage about 80 percent of day n 's flow is a result of the previous day's melt and only 20 percent is a result of the current day's melt. At high flows on the Rio Grande near Del Norte approximately 65 percent of day n 's streamflow was produced by day $n-1$'s melt, while at lower flows late in the runoff season, this contribution increased to over 90 percent.

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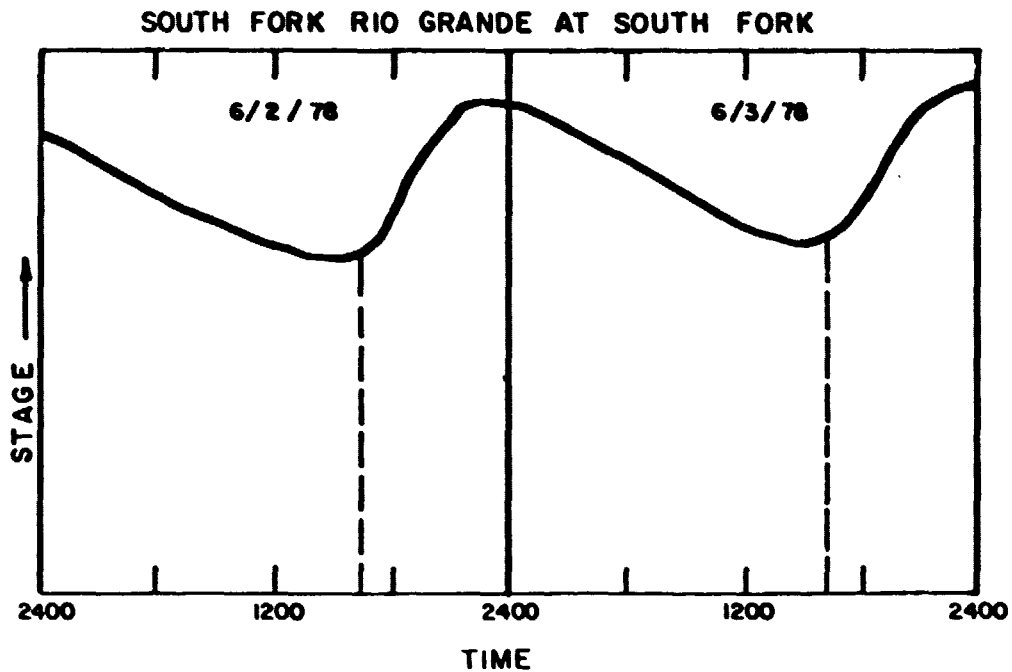


Figure 5 - Daily Hydrograph of South Fork Rio Grande at South Fork for June 2, 3, 1978, near Peak Period of Snowmelt Runoff

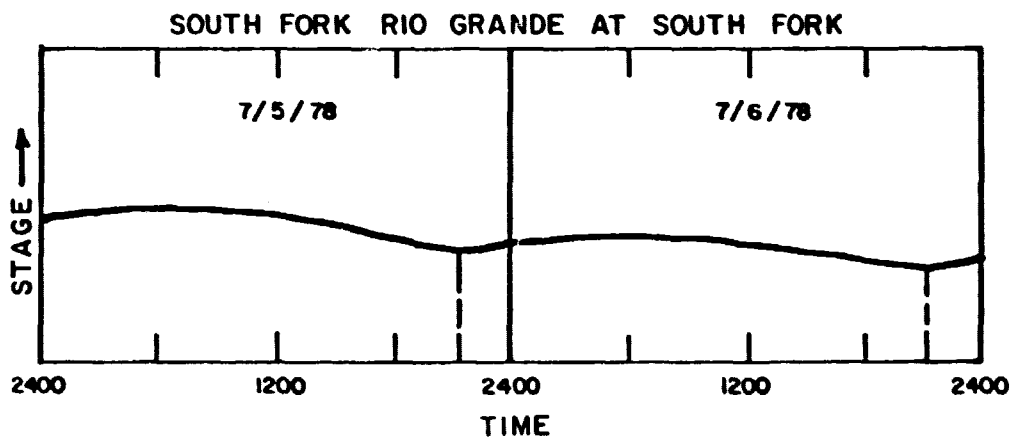


Figure 6 - Daily Hydrograph of South Fork Rio Grande at South Fork for July 5, 6, 1978, near End-of Active Snowmelt Runoff Recession

This gradual shift in the time distribution of the daily streamflow hydrograph from June to July is a function of the size and shape of the watershed areal distribution of snow cover, and the stage of the stream. In the interests of simplicity, it was decided that each day's meltwater production in the South Fork Rio Grande would be split into two components and summed to match the time frame of published daily streamflow records, i.e., midnight to midnight. The procedure involved summing 70 percent of melt generated on day $n-1$ and 30 percent of the melt on day n to arrive at the total meltwater contribution of day n . Although this technique results in the introduction of a small error at low flows it was felt to be insignificant enough to ignore.

On the Rio Grande at Del Norte station, an alternate approach was devised wherein a relationship was developed between the preceding day's snowmelt contribution to streamflow (expressed as a percent) and the total basin snow cover (also expressed as a percent). This technique takes into consideration the size of the basin and the increase in travel time for meltwater to reach the gage as the snow line recedes. This relationship is graphically illustrated in Fig. 7. This procedure permits a continuous relationship rather than the "step-function" approach previously described for the South Fork Rio Grande.

SNOW COVER DEPLETION CURVES

Basin snow-covered area is a critical variable in the Martinec model. Daily values of the proportion of each zone covered by snow are required to drive the model. To obtain this information Landsat imagery was analyzed by photointerpretive techniques, and a map was constructed delineating the location of snow-covered areas in each zone. These areas were then manually planimetered and a value obtained for snow cover in each zone. All available imagery for each year was mapped and a series of snow-cover depletion curves were developed similar to those shown in Fig. 8 for the Rio Grande for 1979. Daily values of zonal snow cover are extracted from the depletion curve and used as input to the model. Appendix D contains a complete summary of snow-cover mapping data and snow-cover depletion curves for the South Fork Rio Grande and Rio Grande above Del Norte for the 1973-80 period.

A comparison of the snow-cover depletion curves for a given watershed over a period of years shows them to be basically similar in shape but shifted in time. This time shift is primarily a function of the volume of snow stored in the watershed. The relative displacement of the curves from year to year are useful in providing a rough measure of the amount of snow on the watershed and also the volume of water to be produced when it melts. An accurate portrayal of this temporal distribution of the snow-cover recession is the most important single factor contributing to the success of the model in explaining the variability of snowmelt discharge rates.

TEMPERATURE LAPSE RATES

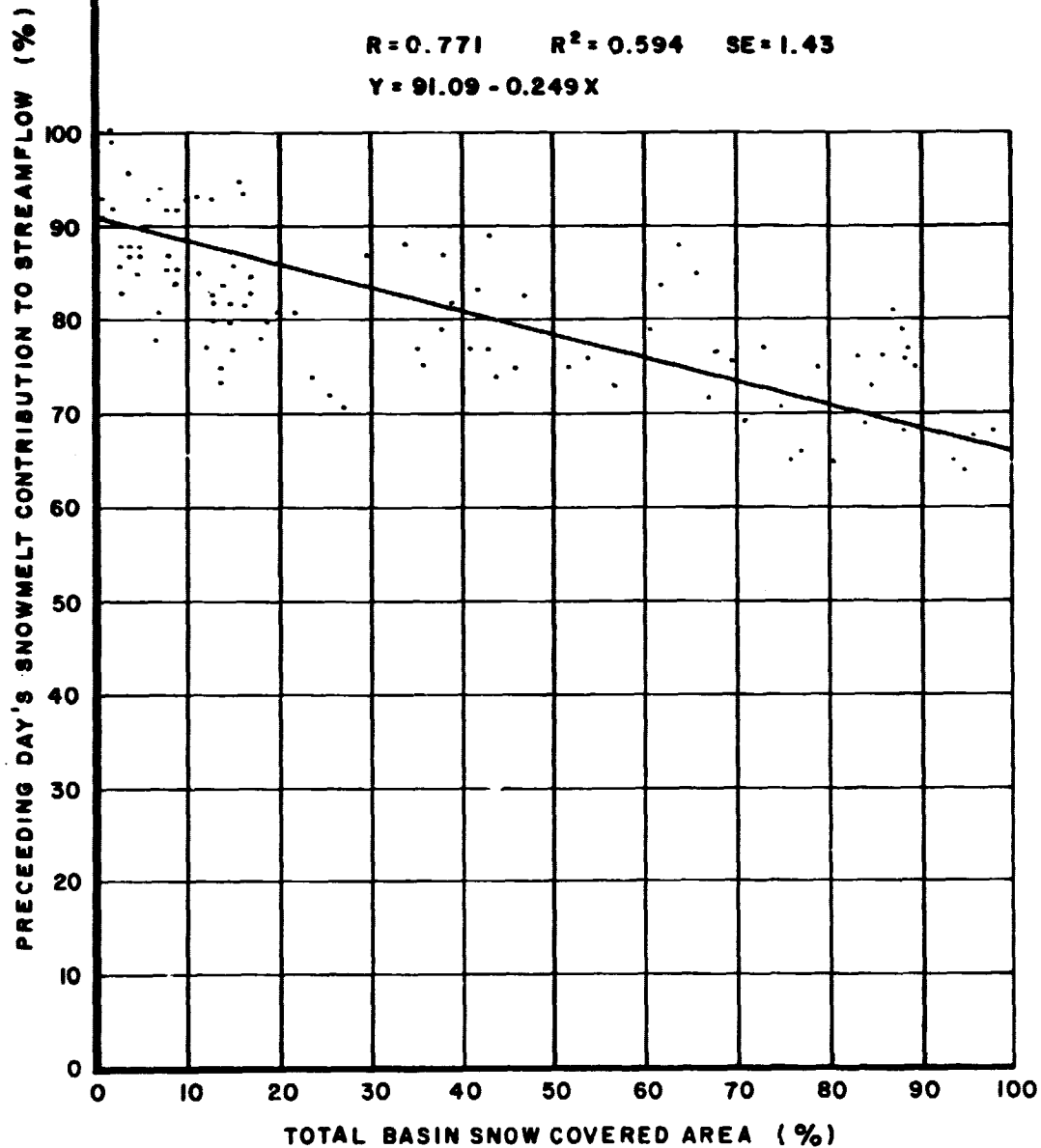
Climatological data for this study was obtained from published records for the Del Norte and Wolf Creek 1E stations. Since Del Norte (elevation 7,884 ft.) is located near the lower end of the Rio Grande watershed and the Wolf Creek 1E station is located on Wolf Creek Pass in the Rio Grande watershed

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Figure 7

TOTAL BASIN SNOW COVERED AREA VS.
PRECEDING DAY'S SNOWMELT CONTRIBUTION
TO STREAMFLOW

RIO GRANDE BASIN, 1975-1979 DATA



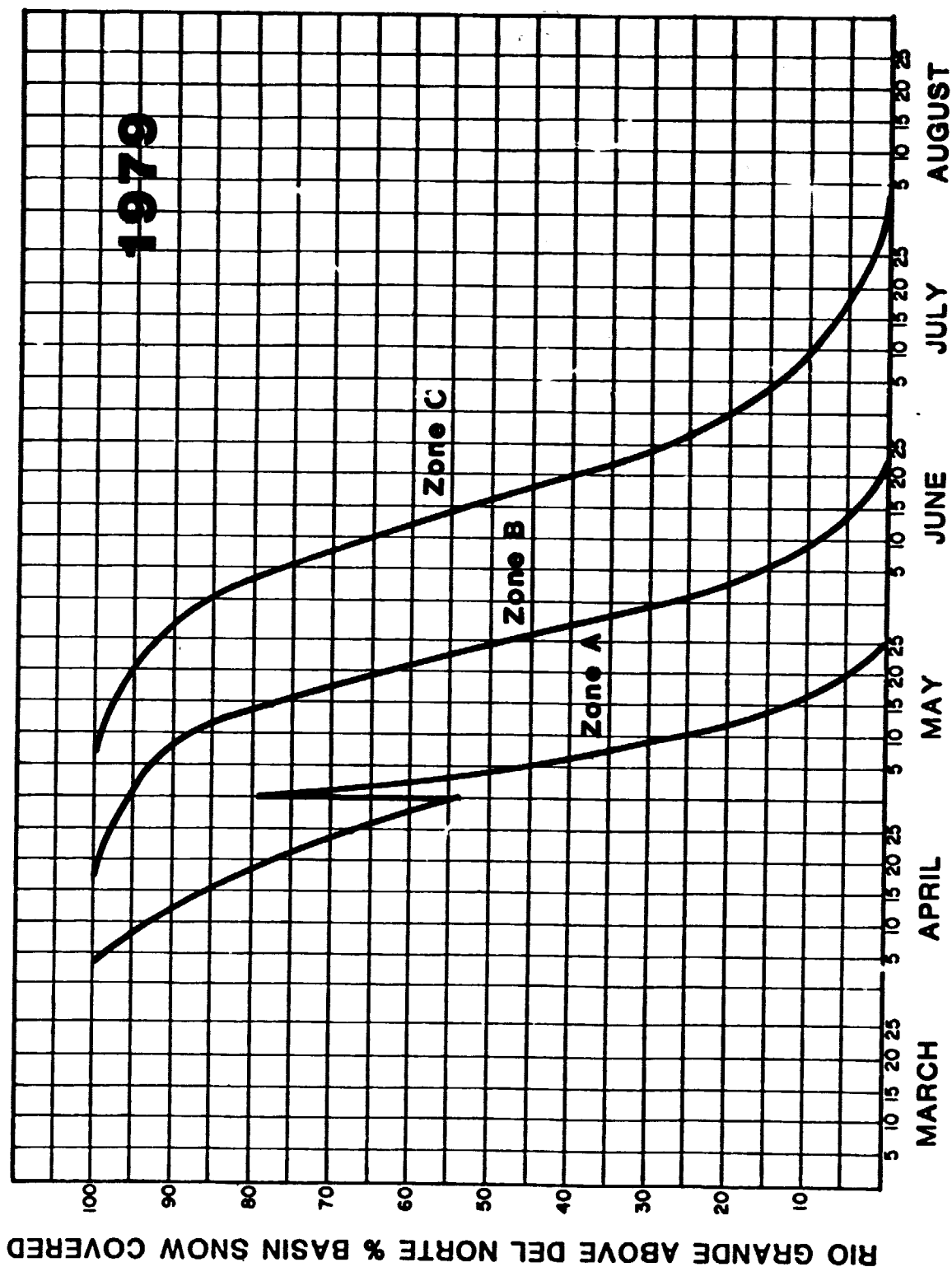


Fig. 8. Snow cover depletion curves for Rio Grande River near Del Norte.

at an elevation of 10,642 ft., actual daily lapse rates calculated between these two stations were utilized to develop degree days for the hypsometric mean elevations of each zone.

To account for variations in station observation time, adjustments were made in daily data. Wolf Creek 1E observation time is 8 a.m.; therefore, daily maximum temperature and precipitation were obtained from the following day's published data. For Del Norte the observation time is 6 p.m.; therefore no adjustment was made.

Temperatures for each zone on the Rio Grande watershed were calculated from observed climatological records from Del Norte and Wolf Creek 1E according to the following equation:

$$T_{ZN} = T_{DN} + \frac{E_{ZN} - E_{DN}}{E_{WC} - E_{DN}} (T_{WC} - T_{DN})$$

where:

T_{ZN} = temperature for a given zone ($^{\circ}\text{F}$)
 T_{DN} = temperature at Del Norte ($^{\circ}\text{F}$)
 T_{WC} = temperature at Wolf Creek 1E ($^{\circ}\text{F}$)
 E_{ZN} = hypsometric mean elevation for zone A, B, or C (ft.)
 E_{DN} = elevation of Del Norte station (7,884 ft.)
 E_{WC} = elevation of Wolf Creek 1E station (10,642 ft.)

Consideration was given to incorporating the Hermit 7 ESE temperature data since it is representative of a rather significant area of the Rio Grande watershed. Analyses showed, however, that this station is greatly influenced by temperature inversions. This means that it is very difficult to use this station for extrapolating temperatures either up or down in elevation.

PRECIPITATION

Precipitation input for the model was based on data from Wolf Creek 1E and Del Norte. Precipitation in each zone was determined by two different methods. To account for orographic type storms which occur in the winter and spring, the precipitation data were calculated by the same elevation ratios used for determining lapse rates for temperatures in each zone. This method was utilized for precipitation occurring in April and May of each year. The following equation summarizes this method:

$$P_{ZN} = P_{DN} + \frac{E_{ZN} - E_{DN}}{E_{WC} - E_{DN}} (P_{WC} - P_{DN})$$

where:

P_{ZN} = precipitation for a given zone (in.)
 P_{DN} = precipitation at Del Norte (in.)
 P_{WC} = precipitation at Wolf Creek 1E (in.)
 E_{ZN} , E_{DN} , E_{WC} are as defined in the equation just above

The second method used to develop precipitation for each zone accounted for convection type storms which occur during the late spring and summer. For this case the precipitation occurring at Del Norte was utilized directly for Zones A and B, and Wolf Creek 1E data were used for Zone C. This method was used for the months of June through September. In other basins alternative precipitation transfer functions may have to be developed to generate realistic precipitation amounts in the various zones.

Appendix A gives the actual published data for Wolf Creek 1E and Del Norte used in the study. Appendix E contains the actual degree-day and precipitation data calculated for each zone for the South Fork Rio Grande and Rio Grande during 1973-80 snowmelt periods.

MELT RATES

Daily snowmelt depths are calculated by the model using the degree-day method. Although several approaches in applying this method have been advanced by various authors including Gartska (1958), Martinec (1960) and Linsley and Franzini (1979), they all relate the amount of snowmelt in a basin to a degree-day index factor. The degree-day factor for snowmelt computations is normally the positive departure of the mean daily temperature above a base temperature of 32°F. The factor is thus an empirical measure of the amount of energy available to melt snow based on air temperature alone. However, other variables including solar radiation, wind and humidity also influence melt rates. For this reason a wide variability in melt rates based on degree-days can be expected. Melt rates ranging from 0.05 to 0.20 inches/degree-day (°F) have been observed at the Upper San Juan SNOTEL site (Shafer et al., 1981a).

In the most common application of the degree-day method, daily mean temperature is approximated as the average of the observed daily minimum and daily maximum temperature for a 24-hour period. This method can lead to instances where melt is observed when the number of degree-days is zero. Such occurrences are caused by the equal weighting of the daily minimum and maximum temperatures.

It is not possible to completely eliminate problems of the foregoing nature when attempting to approximate mean daily temperatures from available climatological records. Even with its obvious shortcomings, the degree-day method does provide a useful tool for modeling. Since it is only an index and not an exact relationship, it is not critical in the model. It is important, however, that whatever degree-day method is once chosen, it be consistently applied thereafter.

For the purposes of the current investigation a degree-day was calculated on the following basis:

$$T_d = \frac{T_{\max} + T_{\min} - 32^{\circ}\text{F}}{2}$$

where:

T_d = degree day

T_{\max} = maximum daily temperature (°F)

T_{\min} = minimum daily temperature (°F)

This method of calculating degree-days differs from the original model's algorithm which uses an effective minimum of 32°F resulting in higher degree-days early in the snowmelt season. Estimates for the degree-day melt factor (a) were made based on plots similar to Fig. 9 as well as snow-course data in each of the various elevational zones of the watersheds. A wide range of melt rates were calculated for different periods in different years. A watershed average of about 0.08 inches/degree-day were computed for both the South Fork Rio Grande and Rio Grande above Del Norte for all years in the simulation. This compares favorably with average values found in the literature (U.S. Army Corps of Engineers, 1960).

A summary of the melt rate factors by zone for each watershed is contained in Appendix F with each year's simulation results.

Melt rates for Zone A in both watersheds generally ranged between .05 inches/degree-day in April to .07 inches/degree-day for the May-September period. Zone B melt rates generally ranged from .03 inches/degree-day in April to a maximum of 0.12 inches/degree-day in late May and early June. Zone C melt rates ranged from .02 inches/degree-day in early April to a maximum of 0.16 inches/degree-day in early June.

RUNOFF COEFFICIENT

A proper evaluation of the zonal runoff coefficient, c, is necessary to achieve a reasonable degree of success with the model. An explicit evaluation of c is not easily performed. Rather, an estimate based on prior experience in other watersheds and consistent with hydrologic conditions prevailing in the study watershed is normally made. For both the South Fork Rio Grande and Rio Grande above Del Norte, estimates of c were adjusted between zones and seasonably varied for each year to achieve as close a fit as possible between the observed and simulated hydrographs for each year. Appendix F contains a listing of runoff coefficients for each yearly simulation run for each watershed.

HYDROGRAPH RECESSION ANALYSIS

To correctly apportion the observed daily streamflow discharge between the current day's snowmelt runoff contribution and the effect of previous day's melt requires an evaluation of the recession coefficient, k. Martinec and Rango (1979) have shown that this coefficient is related to discharge by the following exponential function:

$$k = x \cdot Q^{-y}$$

where: k = recession coefficient
x and y are parameters unique to a given basin
Q = current discharge in ft³/sec

A direct evaluation of this relationship is possible for the watershed. To obtain the values of x and y, values of Q_n were plotted against Q_{n+1} for recession periods over a number of years and a lower envelope line and an average line drawn through the points. The mean line is a visual best fit approximation. The lower envelope line does not necessarily include all points. It is placed to include approximately 90-95 percent of all points. Fig. 10 shows the recession plots for the South Fork Rio Grande and Fig. 11

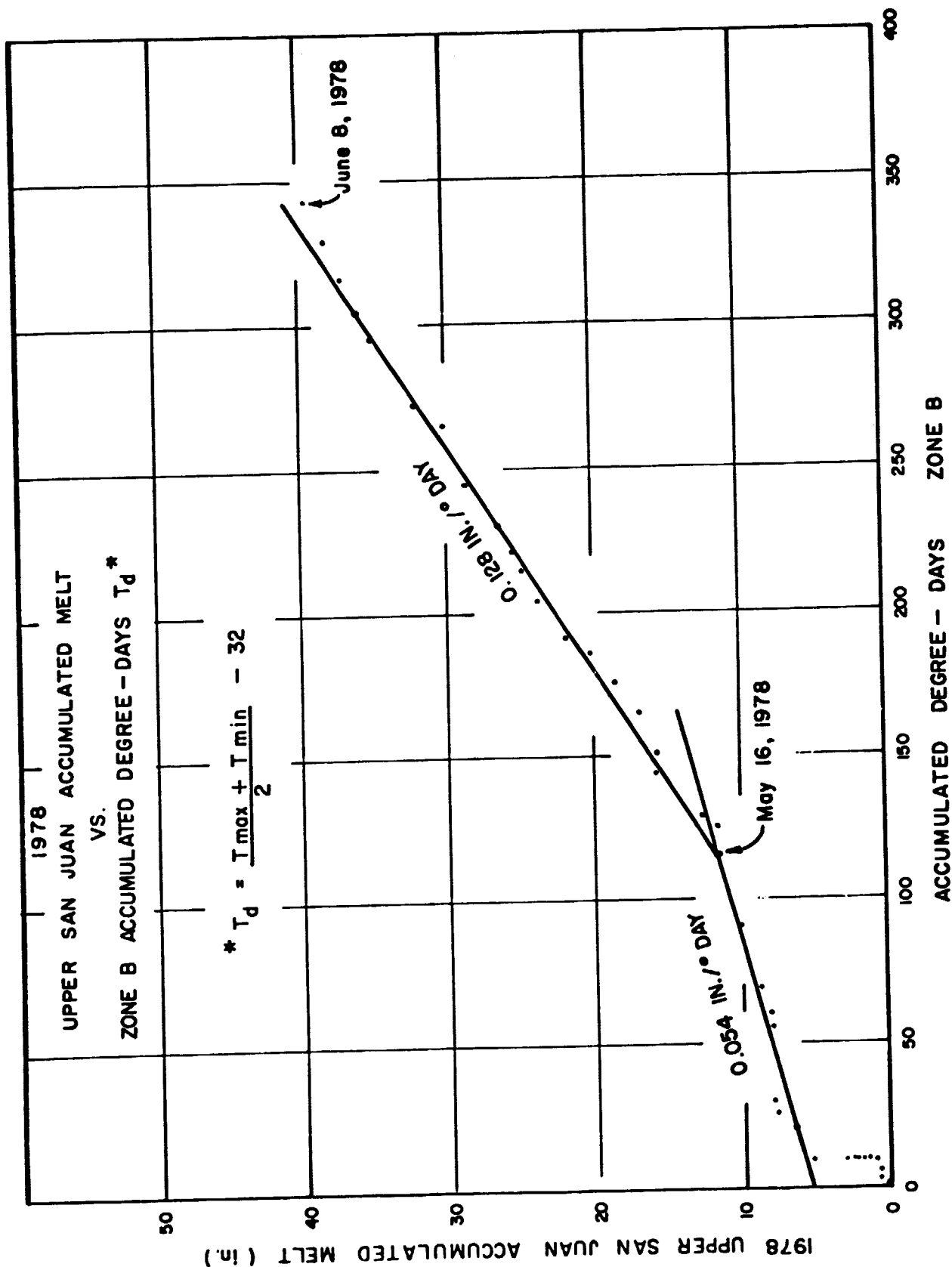


Figure 9 - Observed Melt on a Snow Pillow at Upper San Juan SNOTEL Site Versus Degree-Days Calculated for Zone B in South Fork Rio Grande

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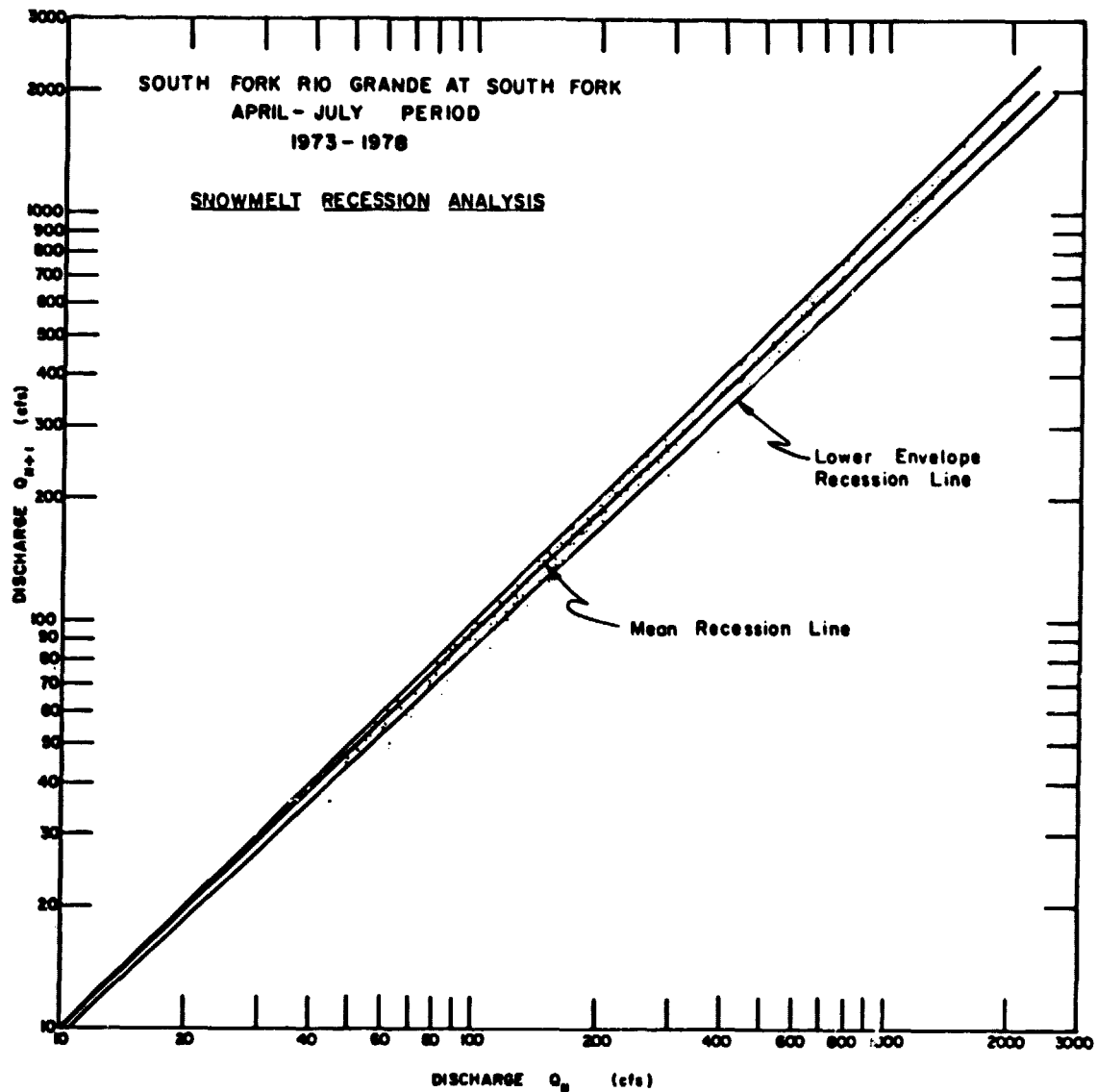


Figure 10- Snowmelt Runoff Recession Plot for South Fork Rio Grande

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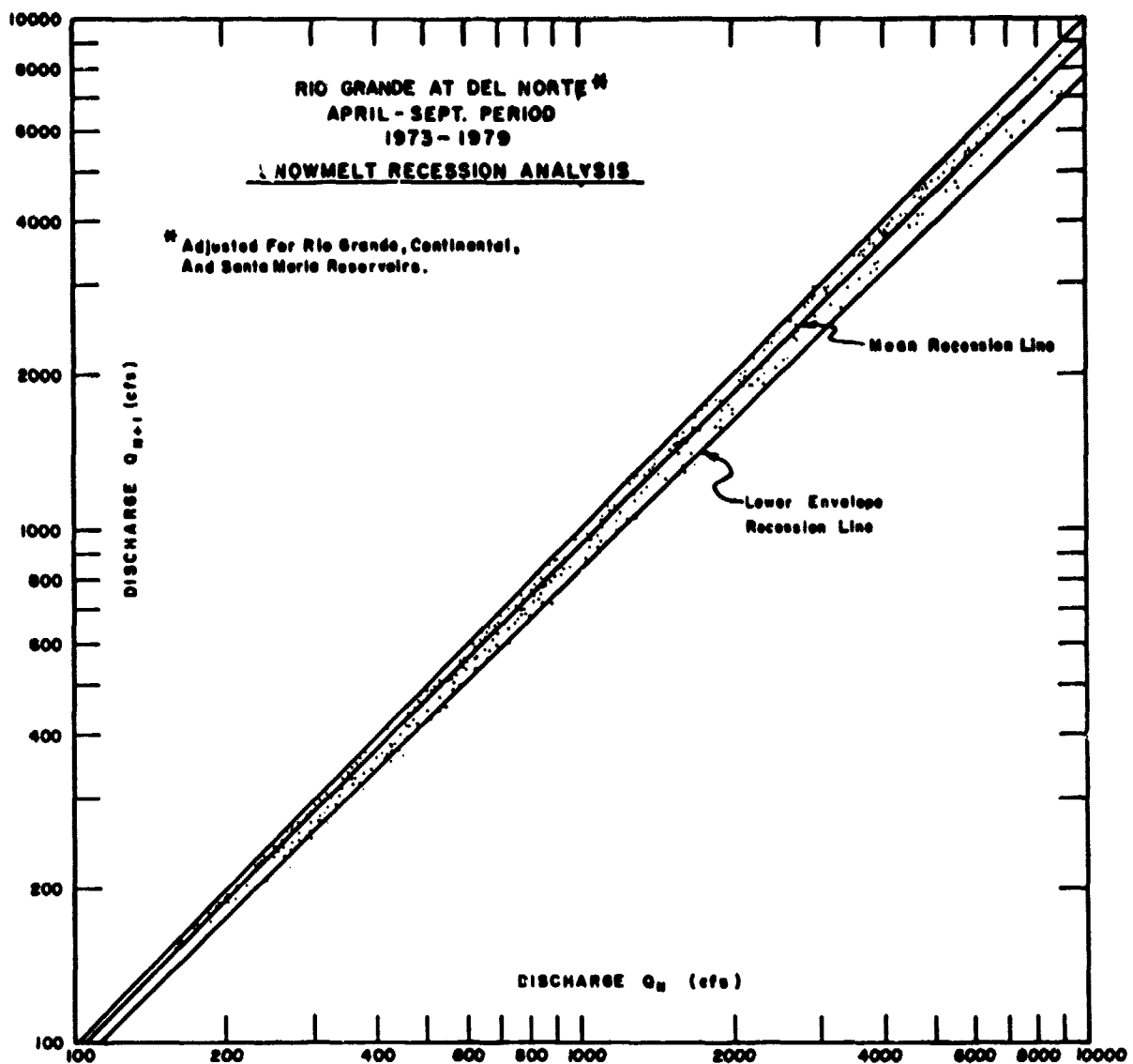


Fig. 11. Snowmelt runoff recession plot for Rio Grande River
at Del Norte.

for Rio Grande near Del Norte. A log-log plot of k versus Q based on the previous plots was then constructed and the watershed constants k and y evaluated for both the envelope line and the mean line. Figures 12 and 13 show the derived recession relationship as a function of discharge for South Fork Rio Grande and Rio Grande near Del Norte, respectively.

RESULTS OF THE MODEL RUNS

The model was operated on the Rio Grande in two modes: it was run with and without the routing corrections which dictate the amount of the preceding day's meltwater contributing to the current day's flow as a function of the total snow cover on the entire basin. Comparisons between the computed flows and the actual flows with and without the continuous routing function are shown for individual years from 1973-79. Those without the correction, that is relying on the former step function technique are shown in Figures 14 to 20, while those with the corrections are shown in Figures 21 to 27. Figures 28 to 34 show actual and simulated flows on the South Fork using the step function only.

Numerical analyses of these model runs have been made using the Nash-Sutcliffe correlation technique. The Nash-Sutcliffe (1970) R^2 is somewhat analogous to the coefficient of determination and is defined as follows:

$$R^2 = \frac{\frac{1}{n} \sum_{i=1}^n (q_i - \bar{q})^2 - \frac{1}{n} \sum_{i=1}^n (q_i - q_i^1)^2}{\frac{1}{n} \sum_{i=1}^n (q_i - \bar{q})^2}$$

where R^2 is a measure of model efficiency
 q_i = observed discharge
 q_i^1 = simulated discharge
 \bar{q} = mean of observed discharge
 n = number of discharge values

This technique, using in time series correlations, tends to give greater emphasis to the higher values. With this technique it is possible to obtain a coefficient of determination less than zero. These results are presented in Table 2 along with an analysis of the percentage seasonal difference $\left(\frac{\text{actual} - \text{computed}}{\text{actual}} \right)$. A positive value indicates an over-prediction.

Analysis of Figures 14-27 and results shown in Table 2 reveal nearly identical performance is achieved by the model with either the step function or continuous function routing. As a practical matter, it would therefore be preferable from an operational perspective to use the continuous function to minimize parameter entry.

Table 2 also includes a summary of the model's performance for the South Fork Rio Grande using the step function routing only.

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SOUTH FORK RIO GRANDE AT SOUTH FORK
APRIL - JULY RECESSION

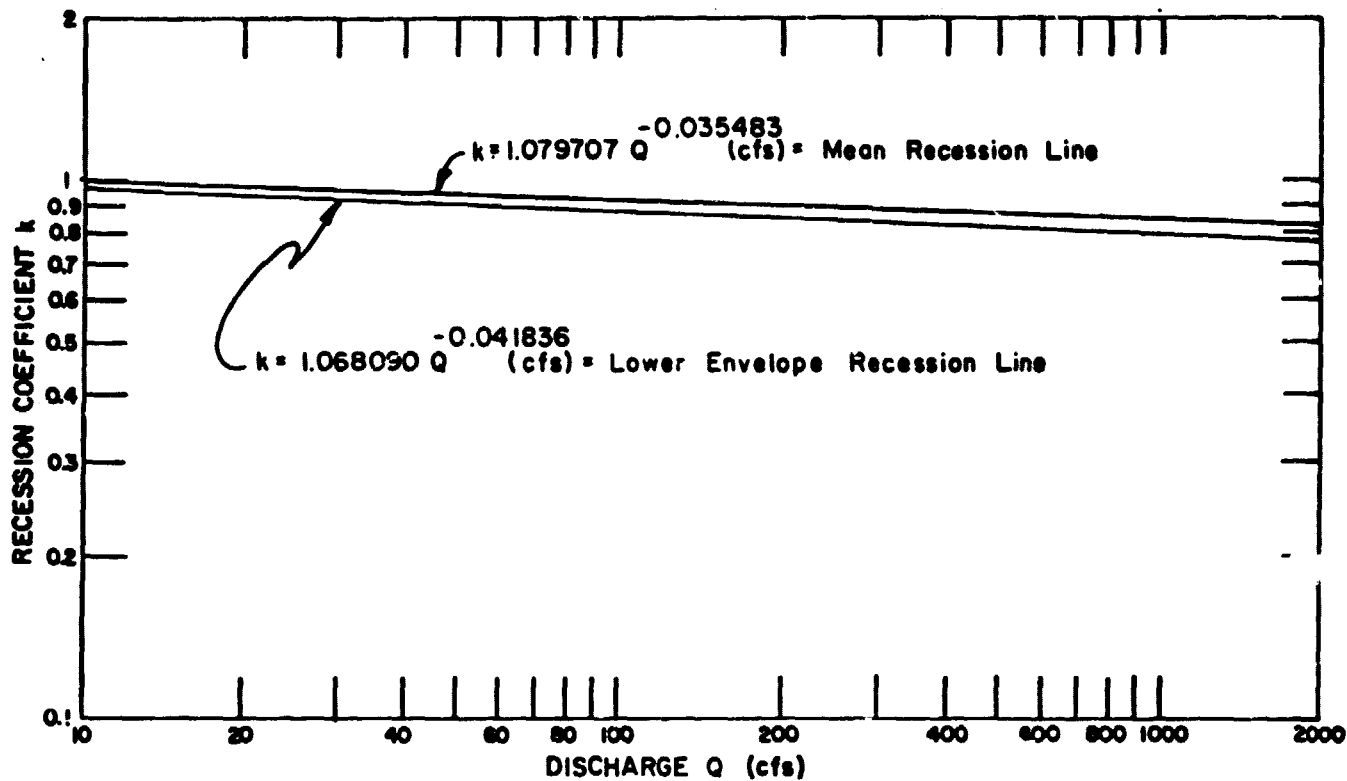


Figure 12 - Snowmelt Runoff Recession Coefficient for South Fork Rio Grande
as a Function of Discharge

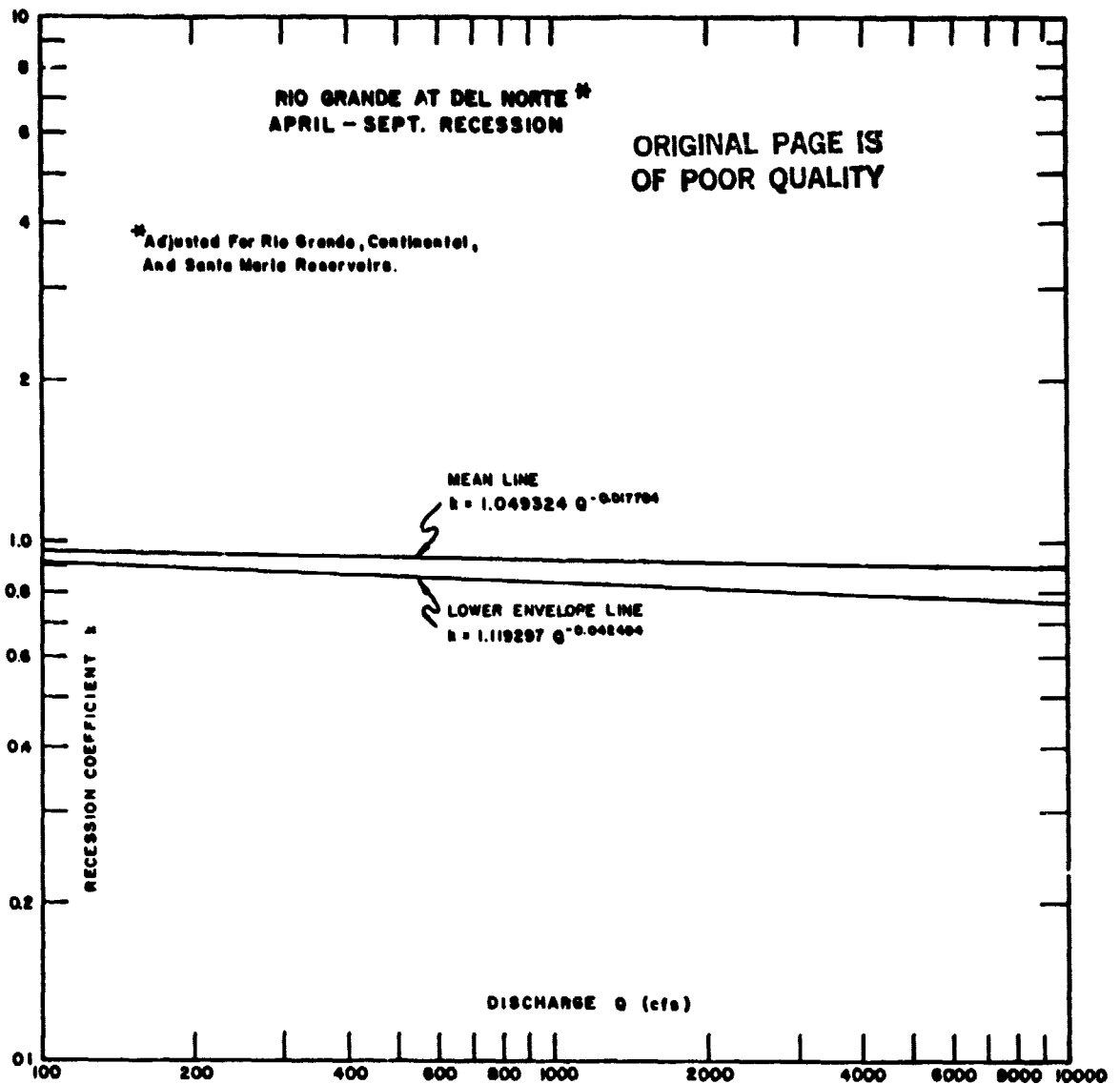


Fig. 13. Snowmelt coefficient for the Rio Grande River at Del Norte as a function of discharge.

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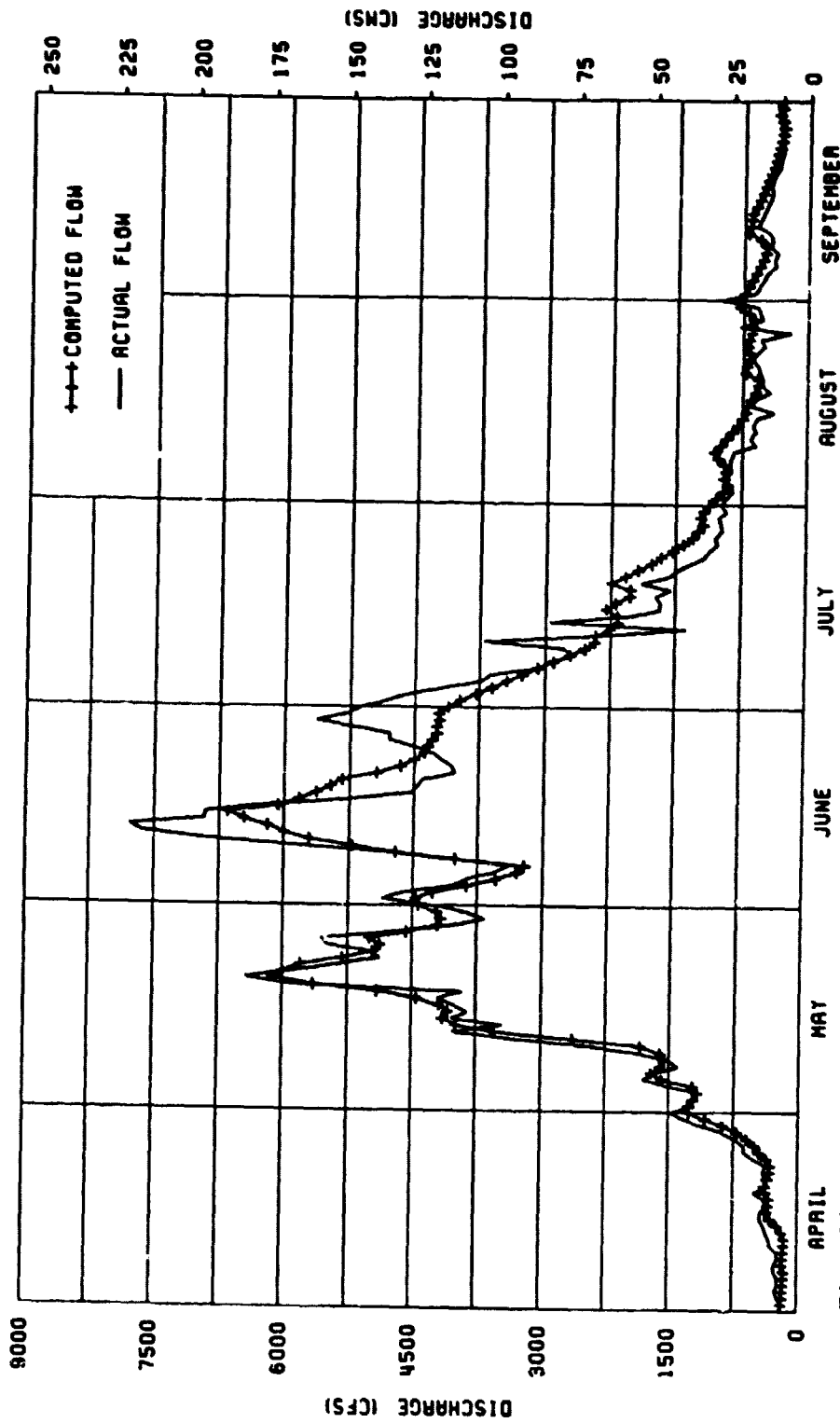


Fig. 14

RIO GRANDE RIVER NEAR DELNORTE, 1973.

WOLFCR 1E AND DELNORTE DATA WITHOUT ROUTING CORRECTION.

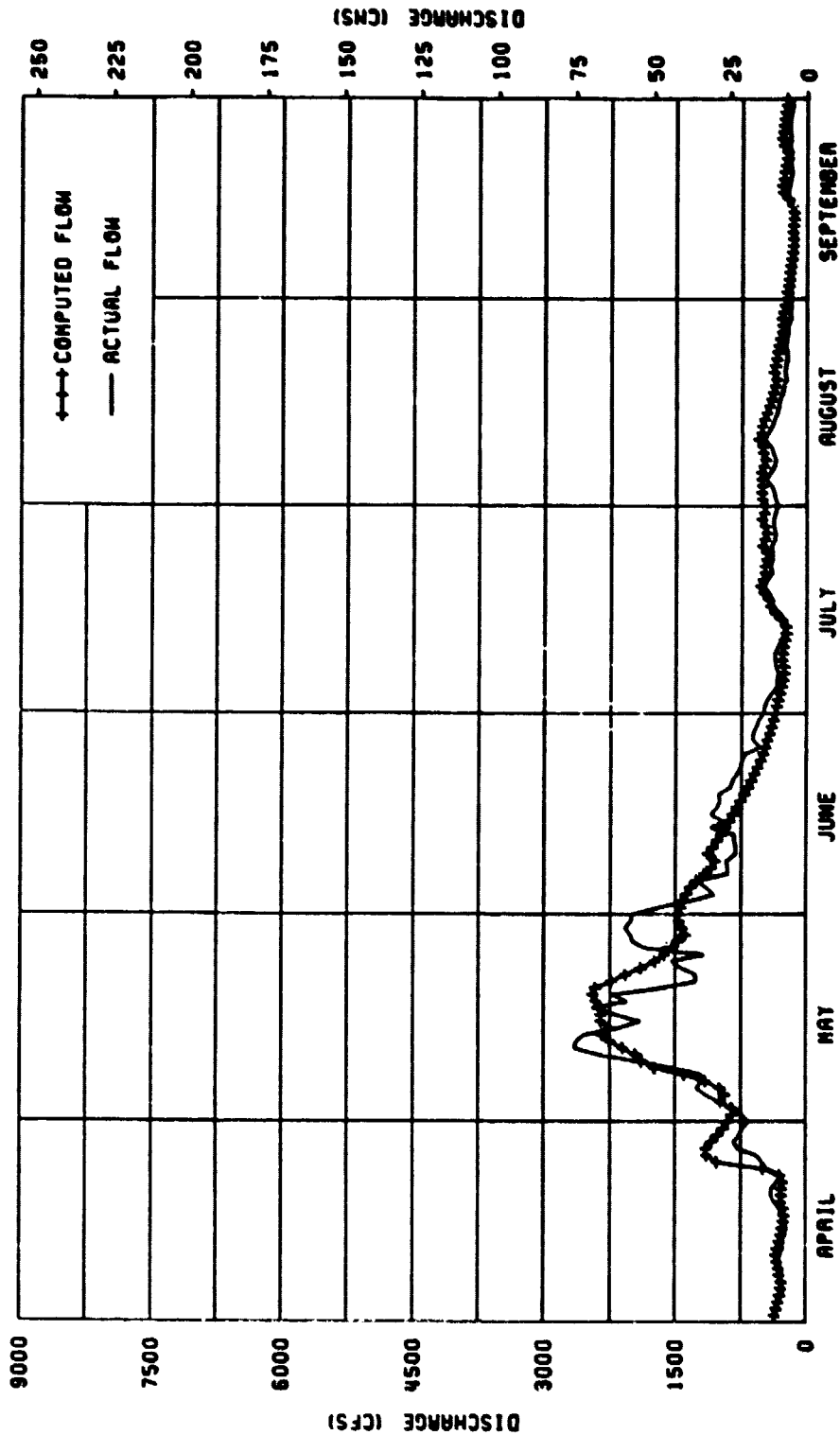


Fig. 15
RIO GRANDE RIVER NEAR DELNORTE, 1974.
WOLFCR 1E AND DELNORTE DATA WITHOUT ROUTING CORRECTION.

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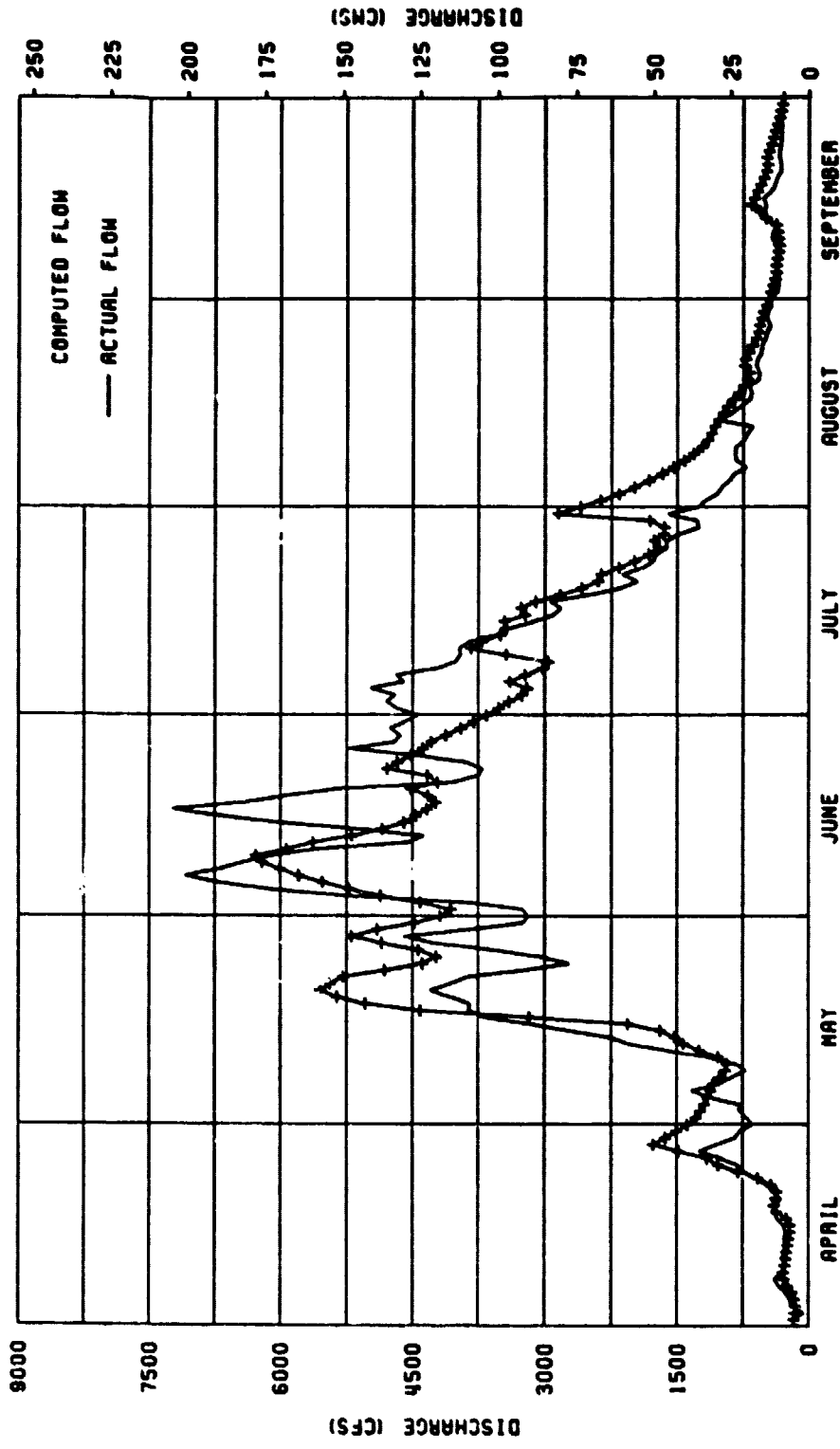


Fig. 16
RIO GRANDE RIVER NEAR DELNORTE, 1975
WOLFCR 1E AND DELNORTE DATA WITHOUT ROUTING CORRECTION

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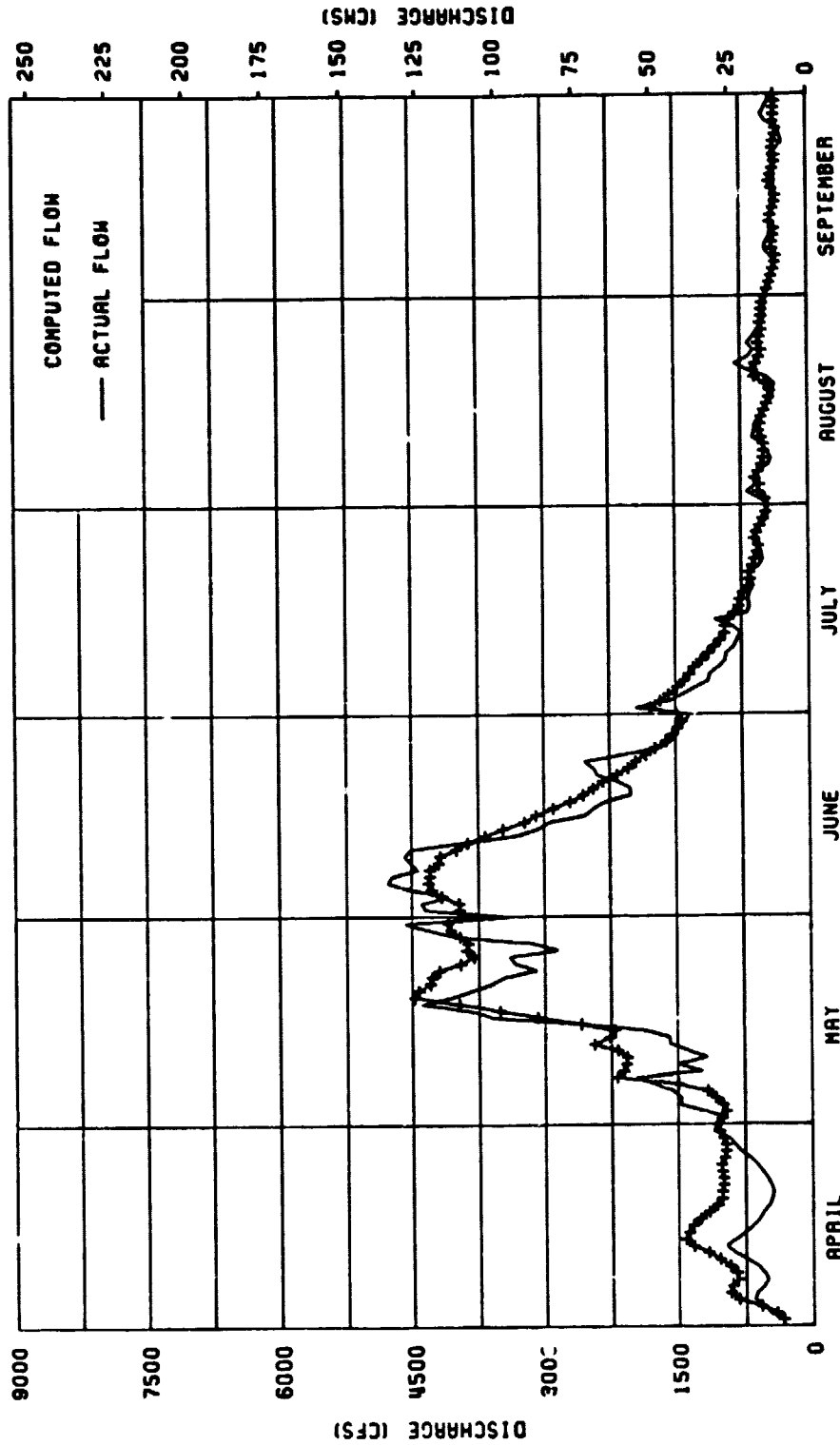


Fig. 17

RIO GRANDE RIVER NEAR DELNORTE, 1976

WOLFCR 1E AND DELNORTE DATA WITHOUT ROUTING CORRECTION

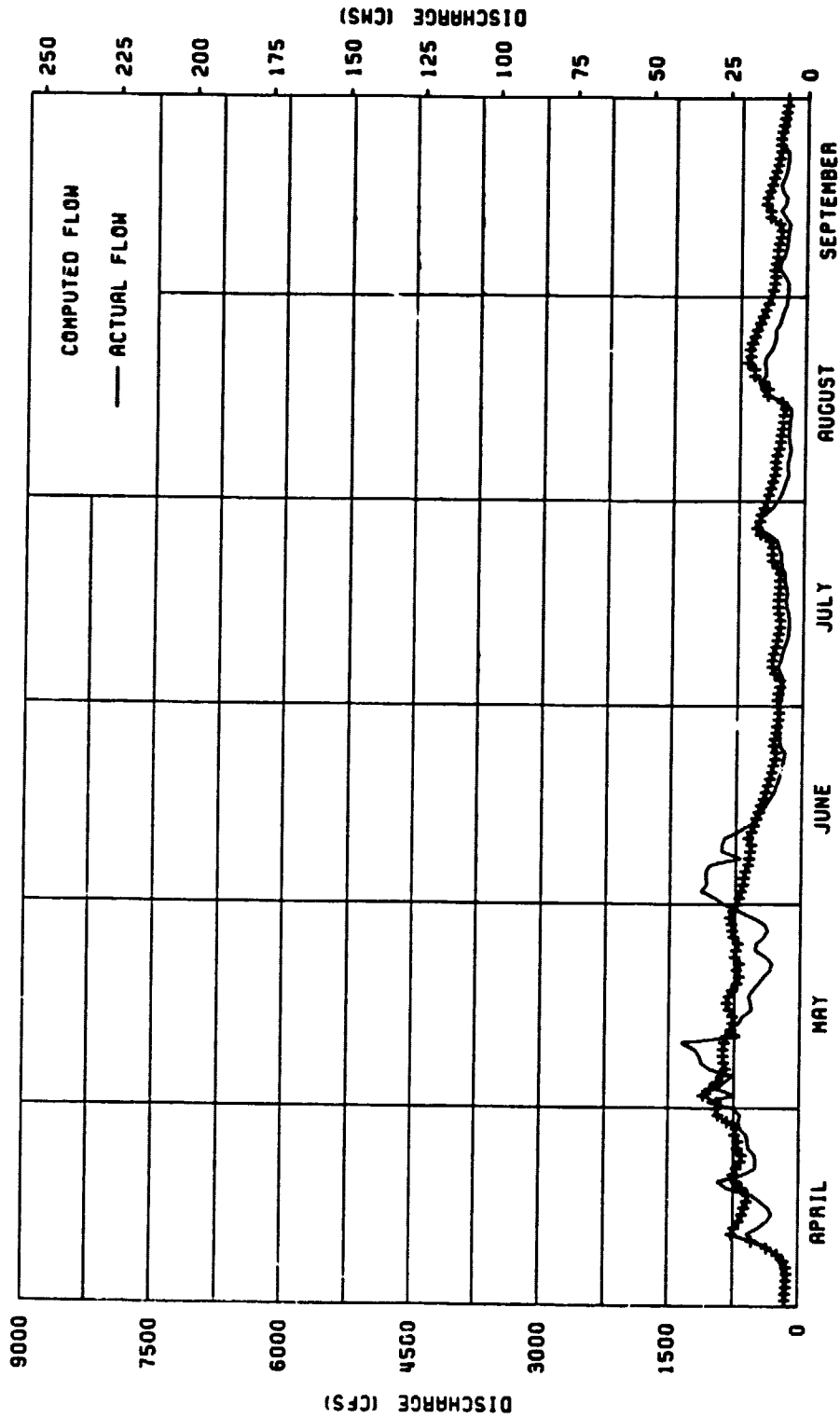
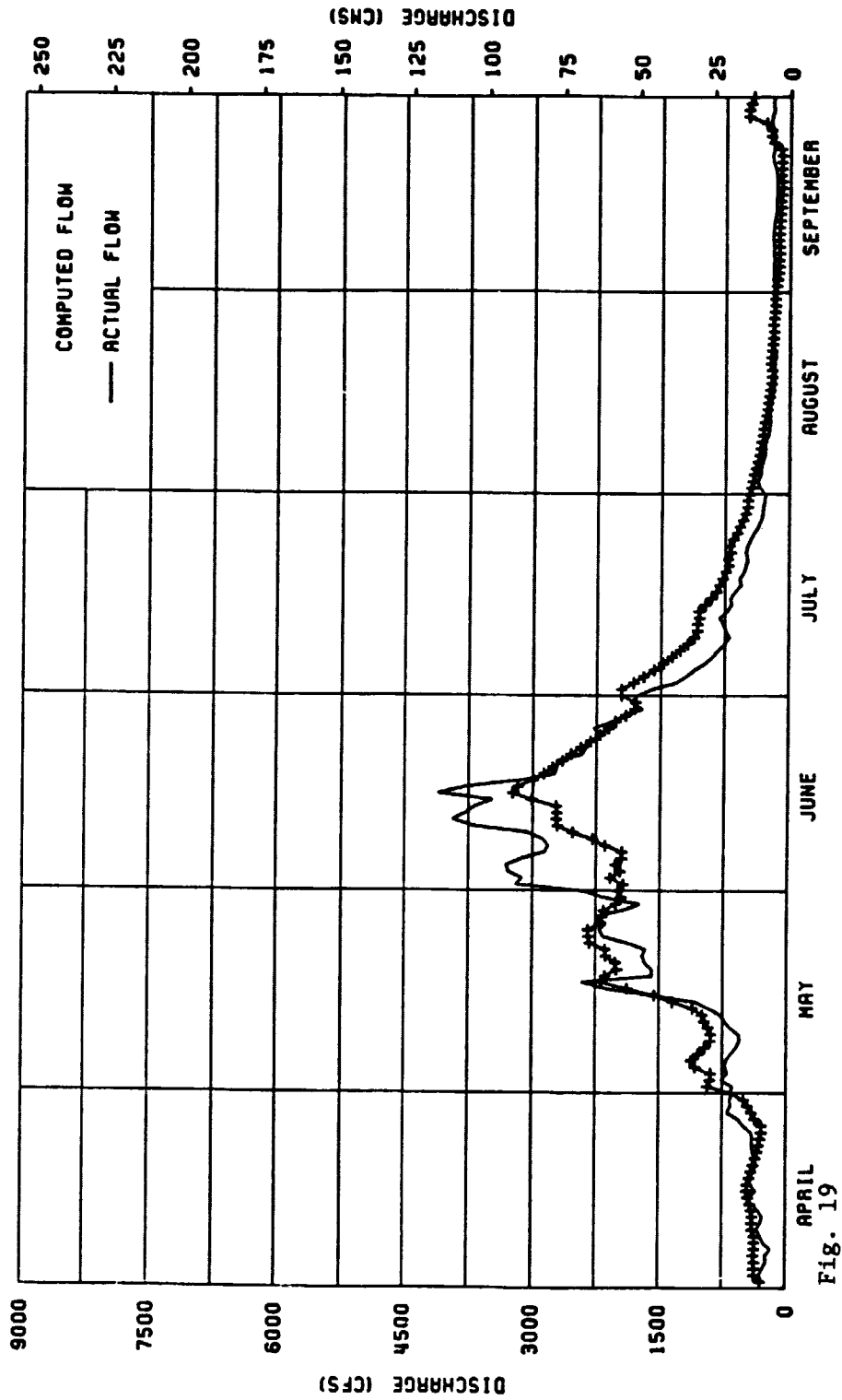


Fig. 18
RIO GRANDE RIVER NEAR DELNORTE, 1977.

WOLF CREEK 1E AND DELNORTE DATA WITHOUT ROUTING CORRECTION

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RIO GRANDE RIVER NEAR DELNORTE, 1978.

WOLF CREEK 1E AND DELNORTE DATA WITHOUT ROUTING CORRECTION.

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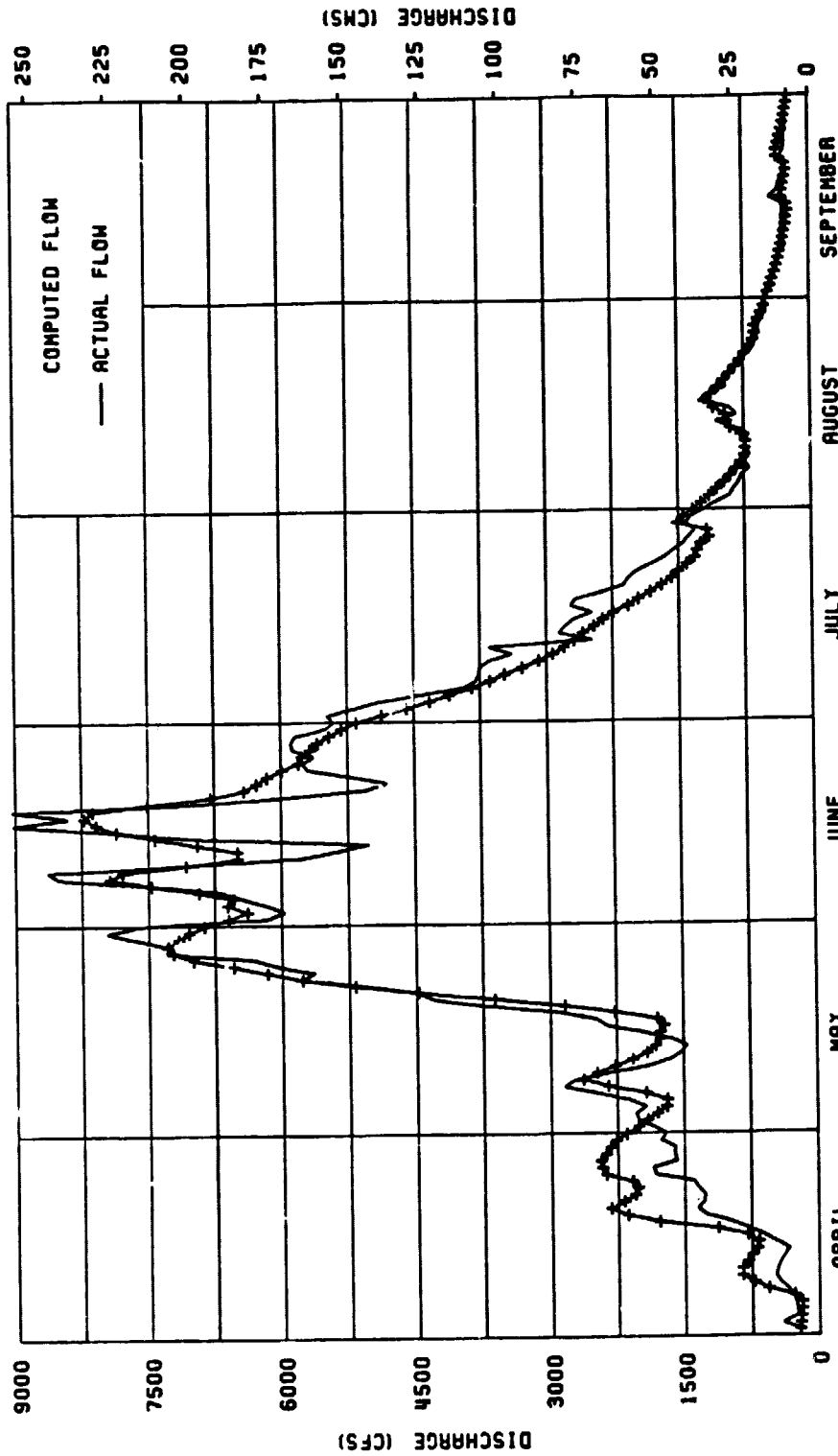


Fig. 20
RIO GRANDE RIVER NEAR DELNORTE, 1979.
WOLF CREEK 1E AND DELNORTE DATA WITHOUT ROUTING CORRECTION.

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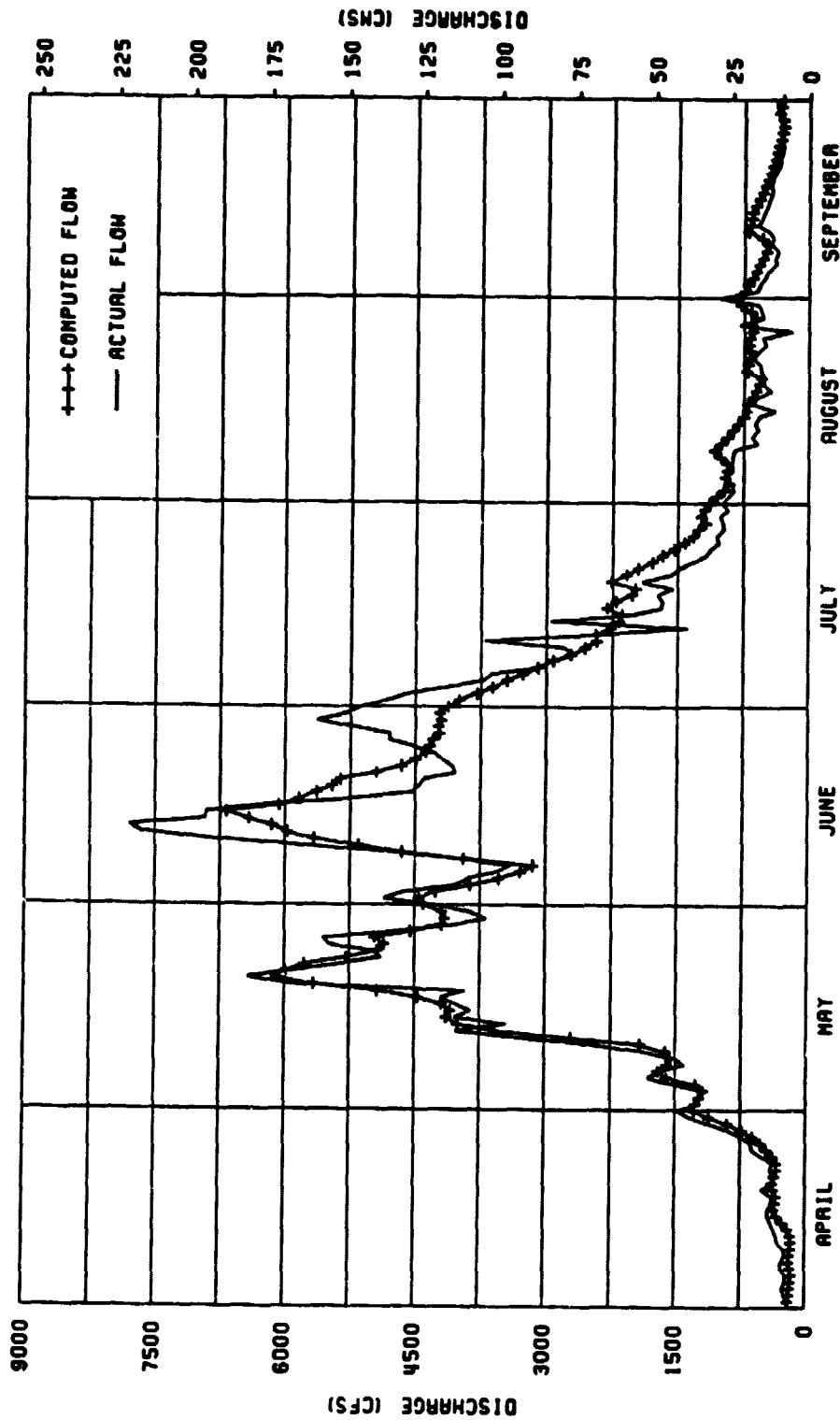


Fig. 21

RIO GRANDE RIVER NEAR DELNORTE, 1973.

WOLFCR 1E AND DELNORTE DATA WITH ROUTING CORRECTION.

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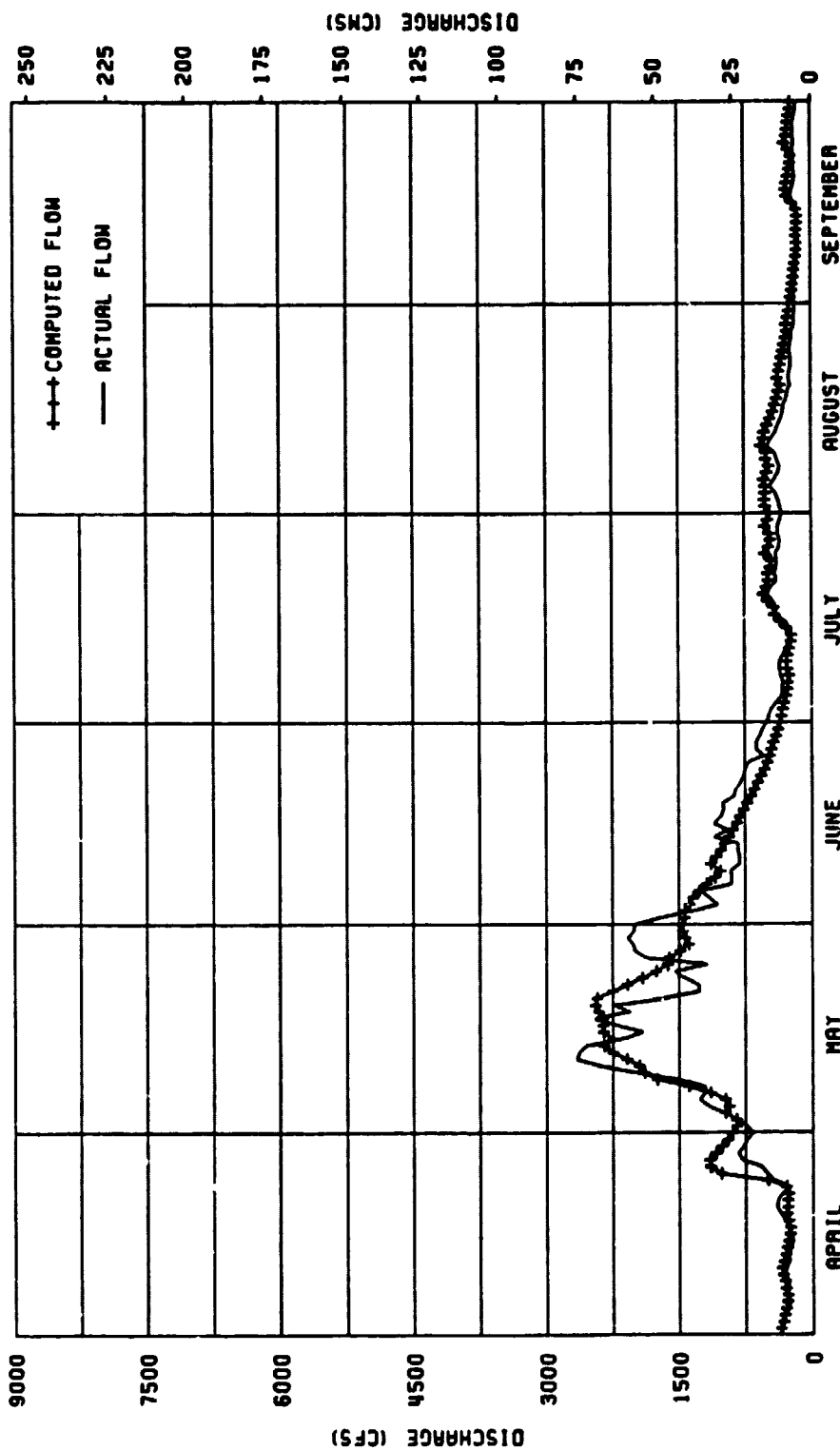


Fig. 22
RIO GRANDE RIVER NEAR DELNORTE, 1974.
WOLFCR 1E AND DELNORTE DATA WITH ROUTING CORRECTION.

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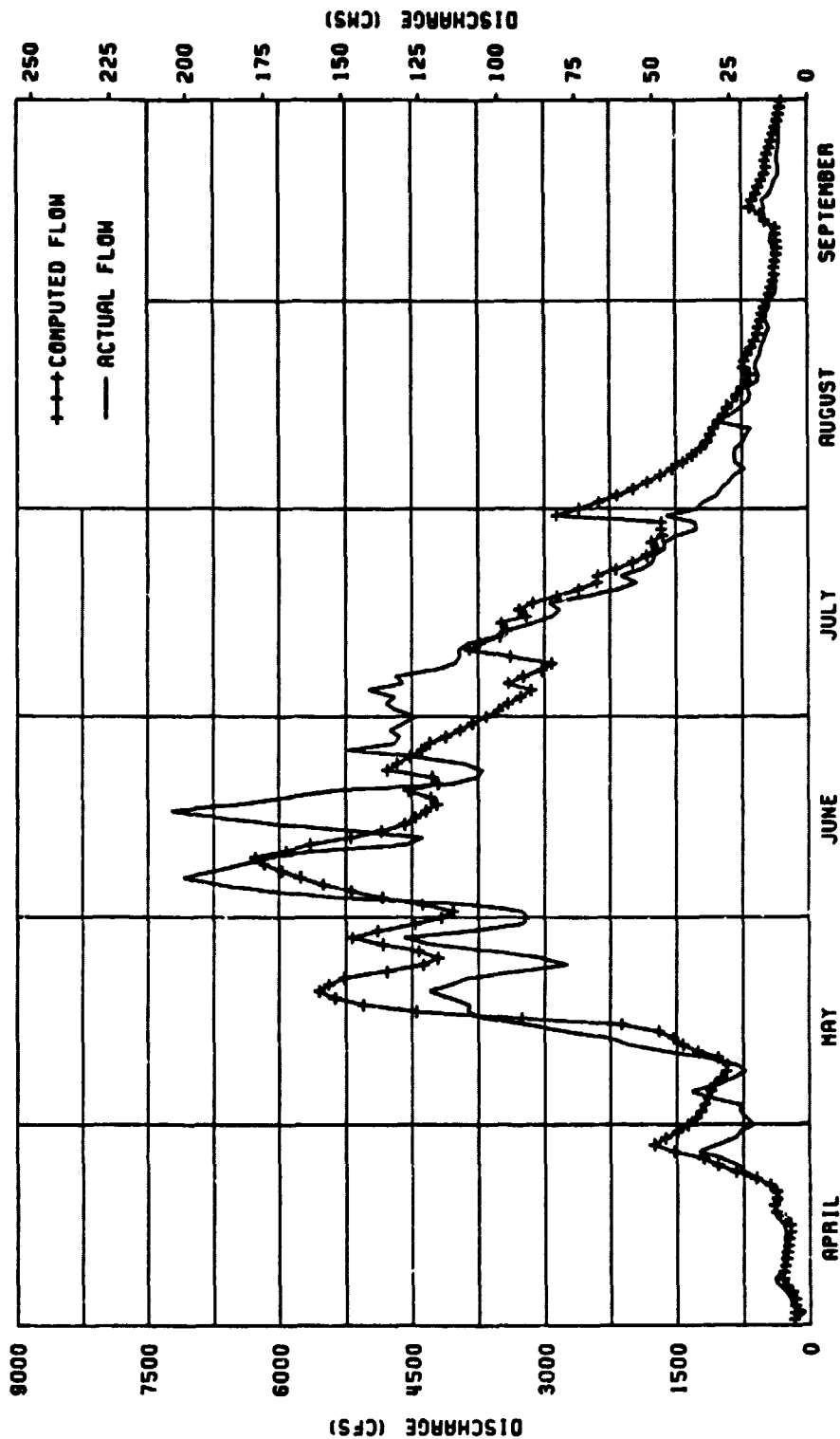
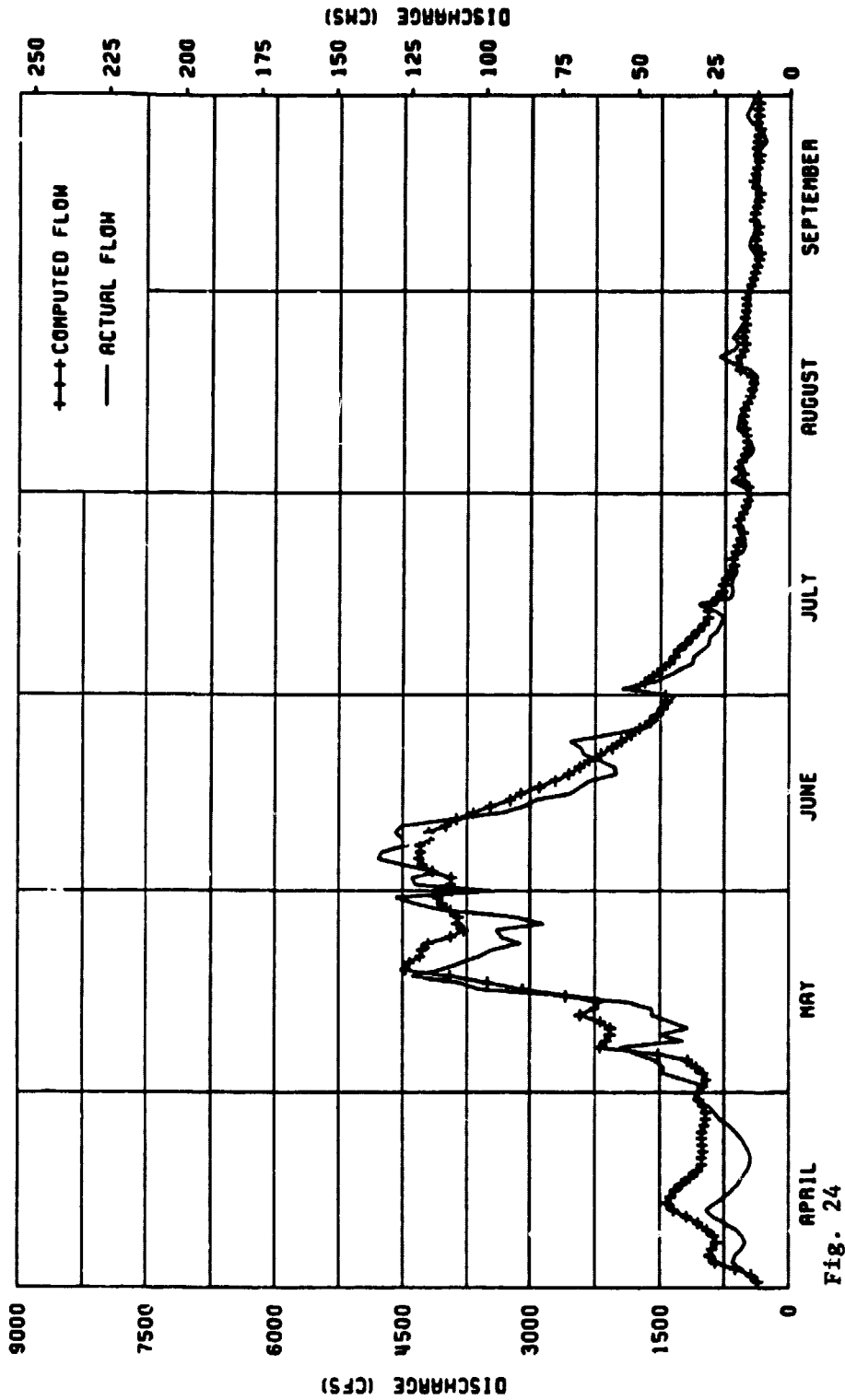


Fig. 23
RIO GRANDE RIVER NEAR DELNORTE, 1975.
WOLFCR 1E AND DELNORTE DATA WITH ROUTING CORRECTION.

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RIO GRANDE RIVER NEAR DELNORTE, 1976.

WOLFCR 1E AND DELNORTE DATA WITH ROUTING CORRECTION.

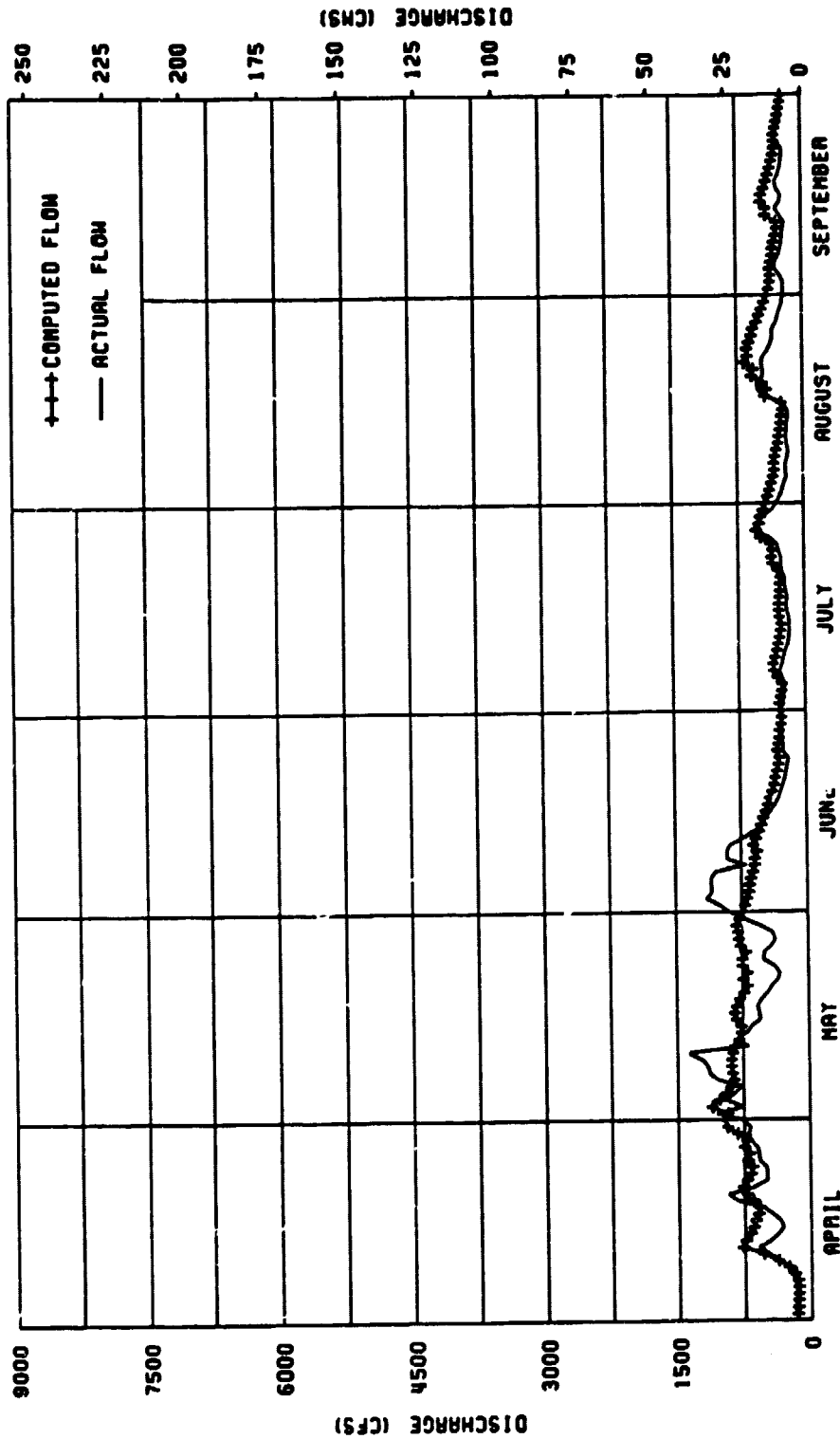


Fig. 25
RIO GRANDE RIVER NEAR DELNORTE, 1977.
WOLFCR 1E AND DELNORTE DATA WITH ROUTING CORRECTION.

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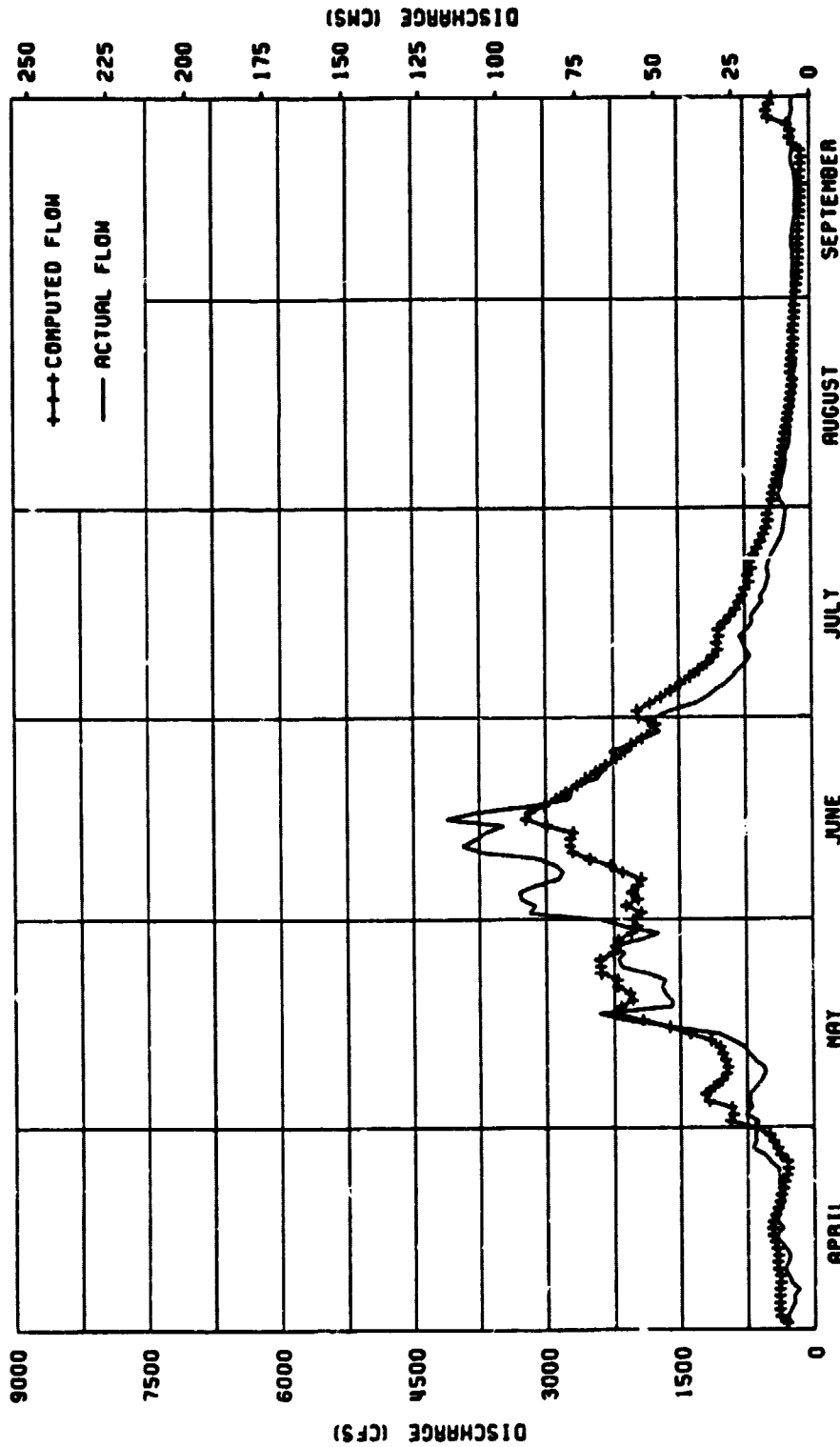


Fig. 26
RIO GRANDE RIVER NEAR DELNORTE. 1978.
WOLFCR 1E AND DELNORTE DATA WITH ROUTING CORRECTION.

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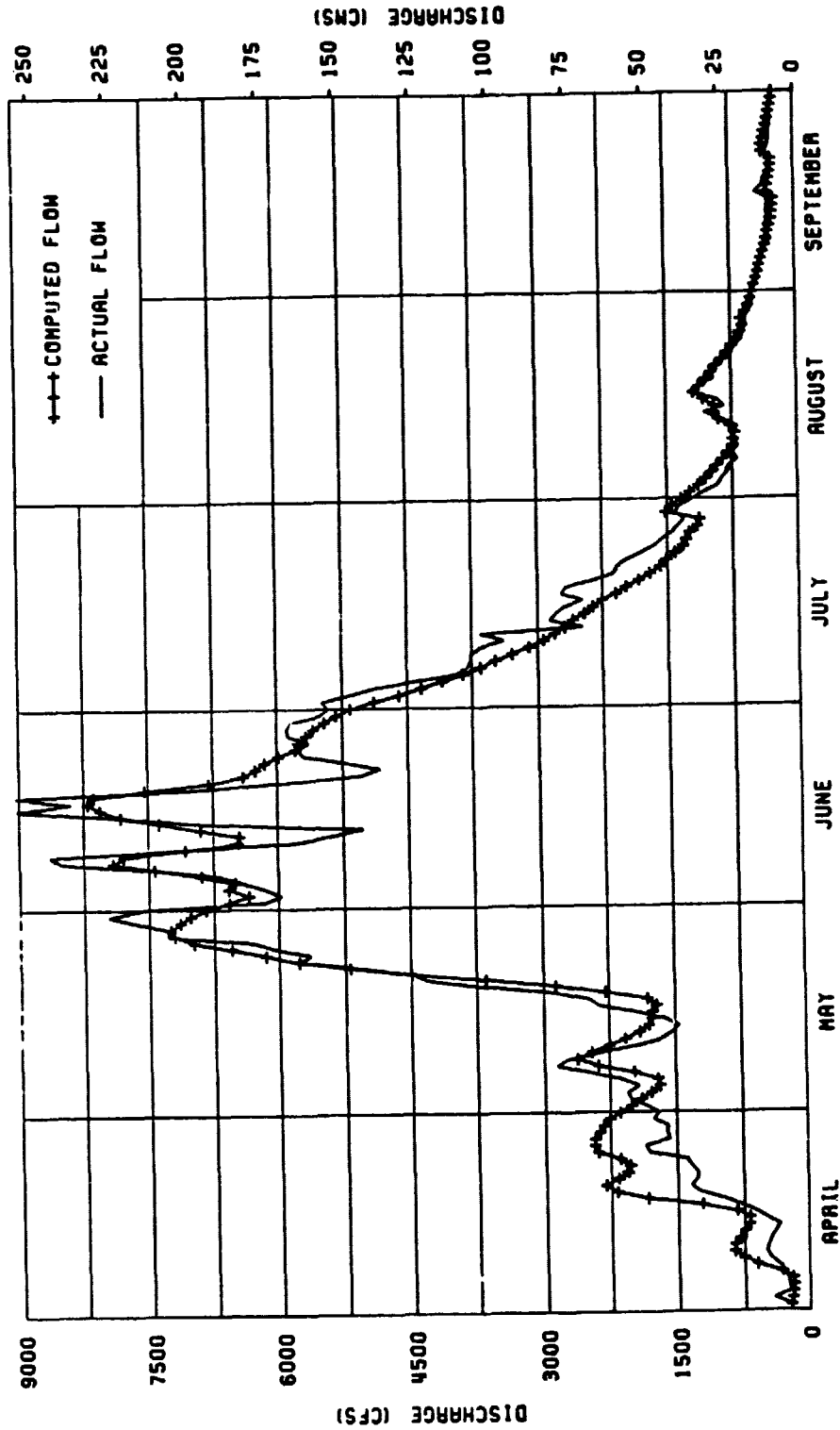


Fig. 27
RIO GRANDE RIVER NEAR DELNORTE, 1979.
WOLFCR 1E AND DELNORTE DATA WITH ROUTING CORRECTION.

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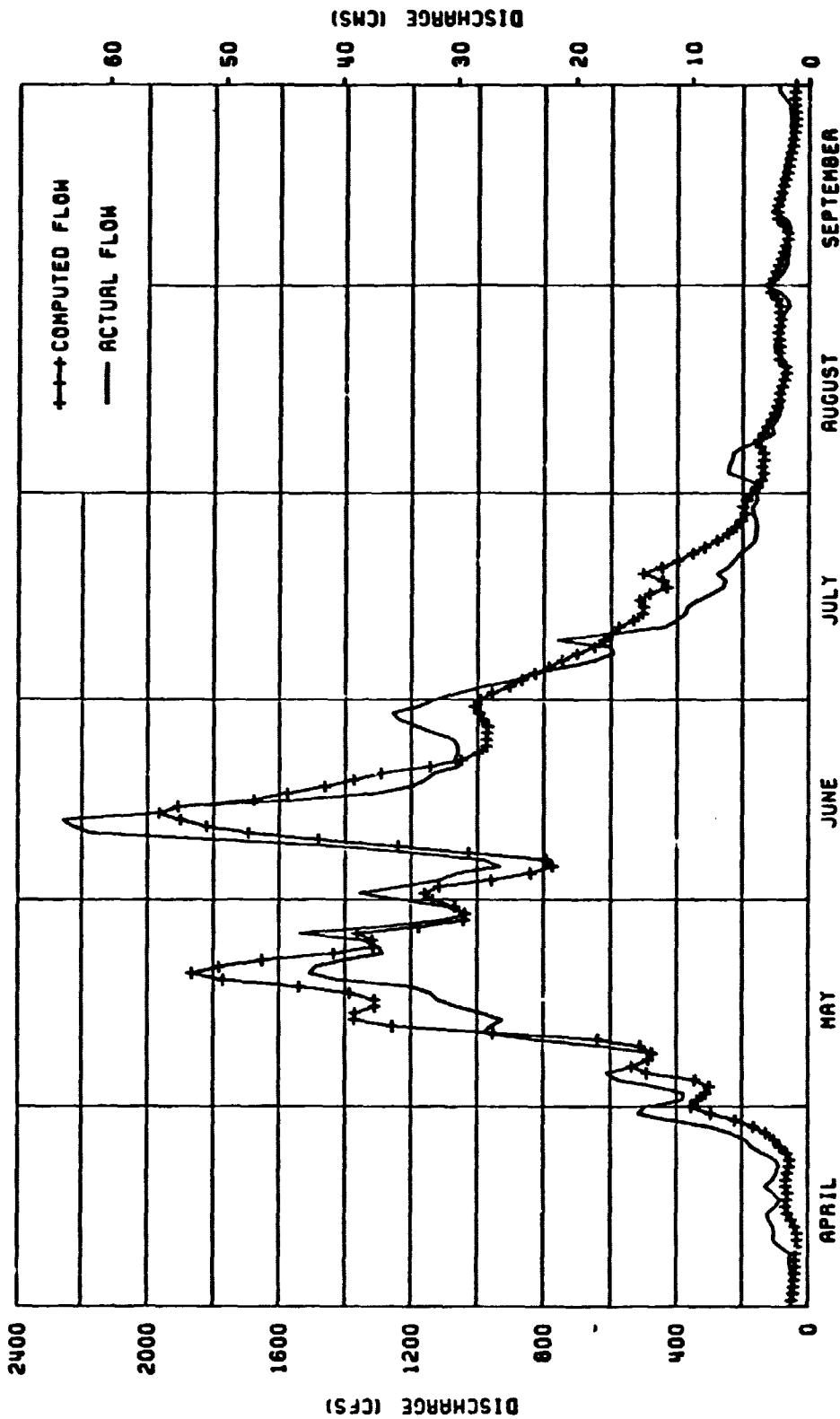


FIGURE 28
SOUTH FORK OF THE RIO GRANDE RIVER AT SOUTH FORK
MODEL RUN FOR 1973 RUN MADE OCTOBER 24, 1980

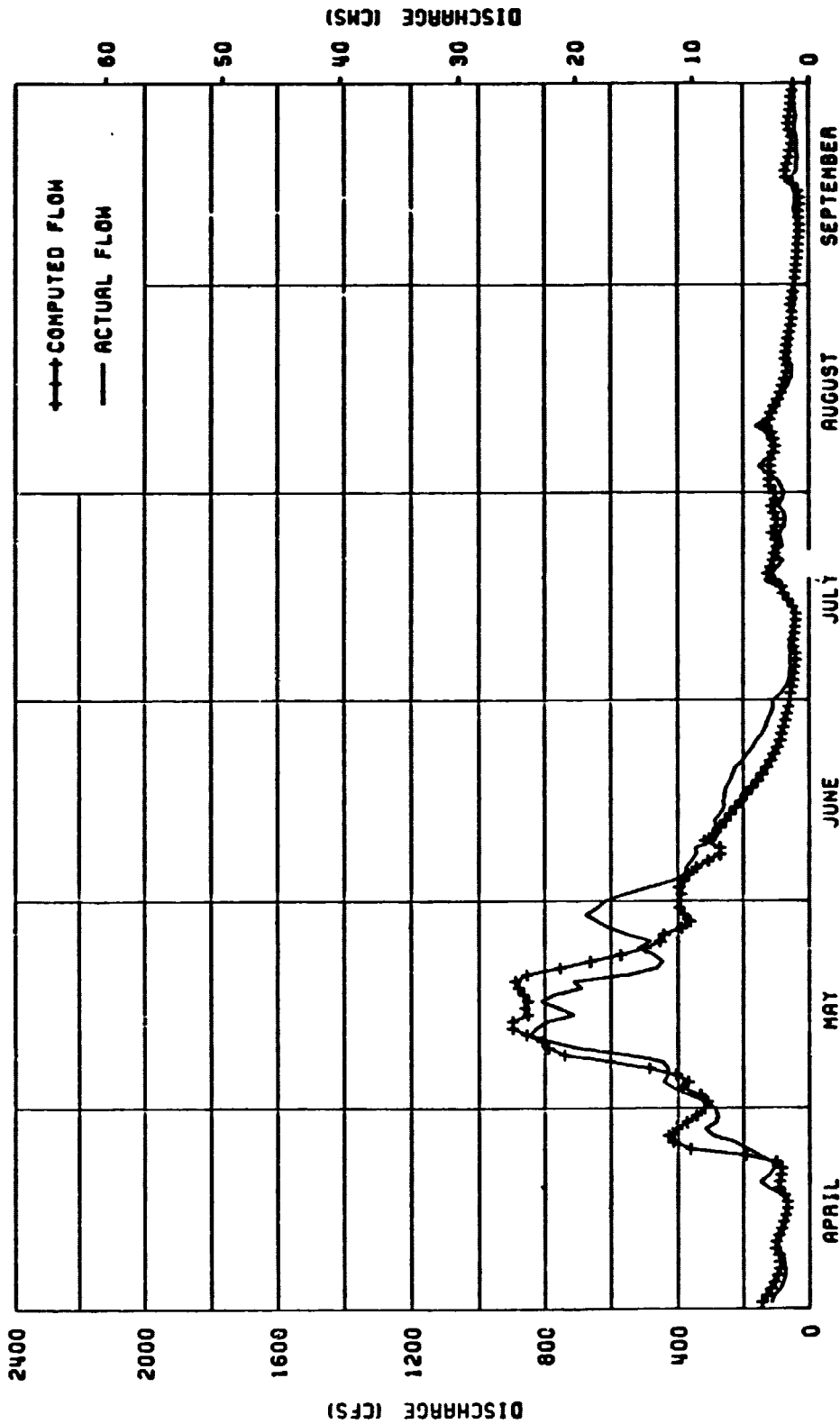


FIGURE 29
SOUTH FORK OF THE RIO GRANDE RIVER AT SOUTH FORK
MODEL RUN FOR 1974 RUN MADE OCTOBER 24, 1980

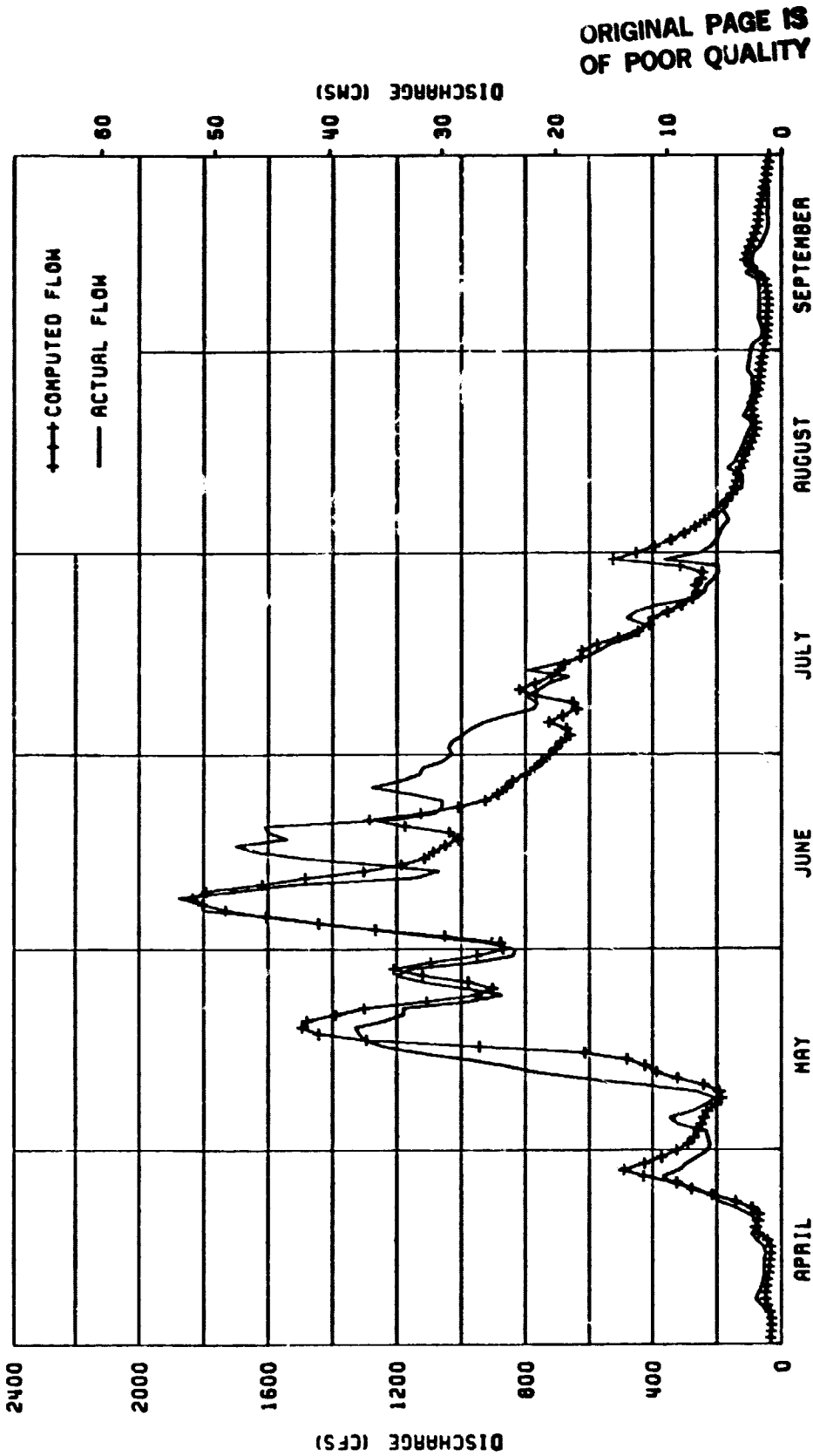


FIGURE 30
SOUTH FORK OF THE RIO GRANDE RIVER AT SOUTH FORK
MODEL RUN FOR 1975 RUN MADE OCTOBER 24, 1980

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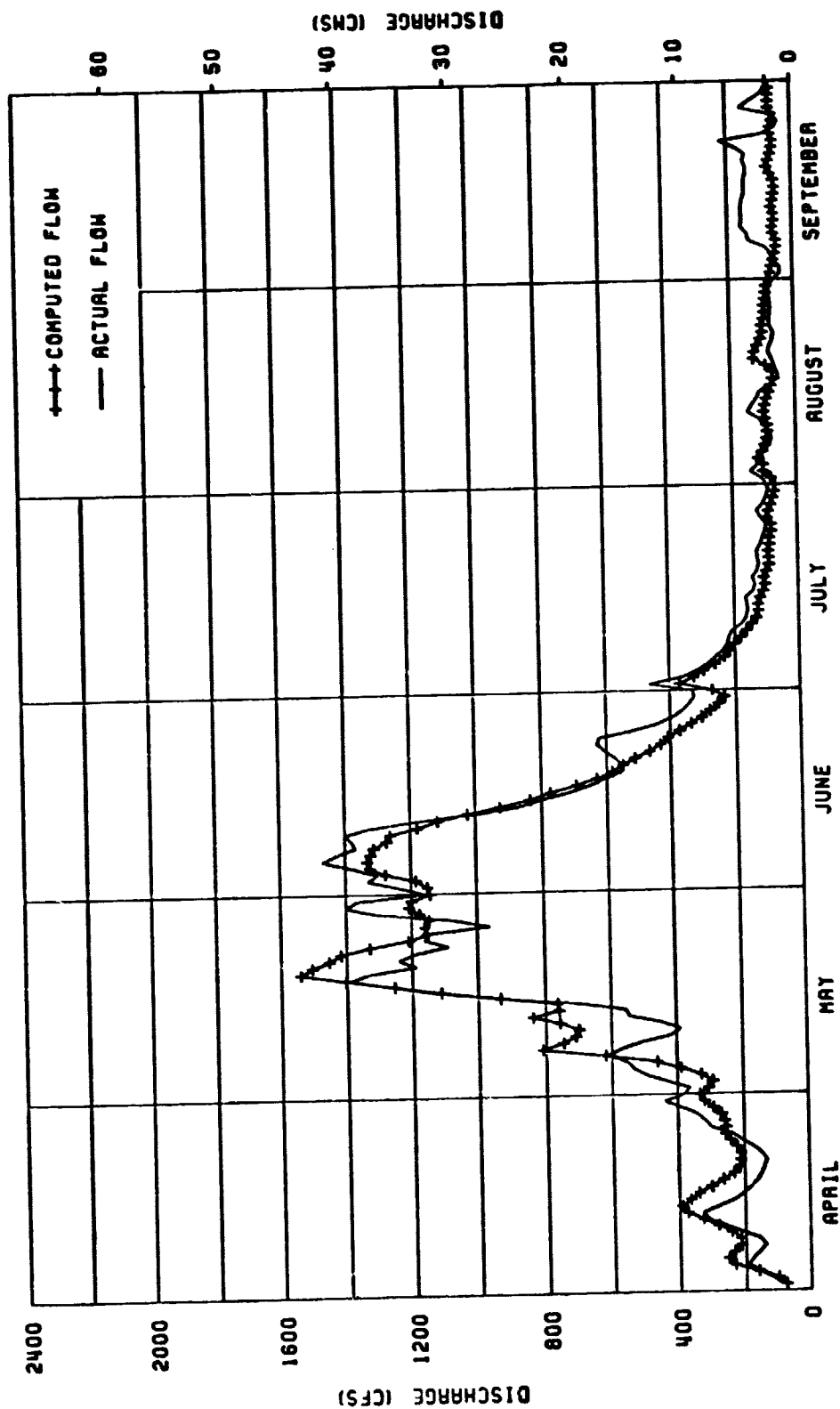


FIGURE 31
SOUTH FORK OF THE RIO GRANDE RIVER AT SOUTH FORK
MODEL RUN FOR 1976 RUN MADE OCTOBER 24, 1980

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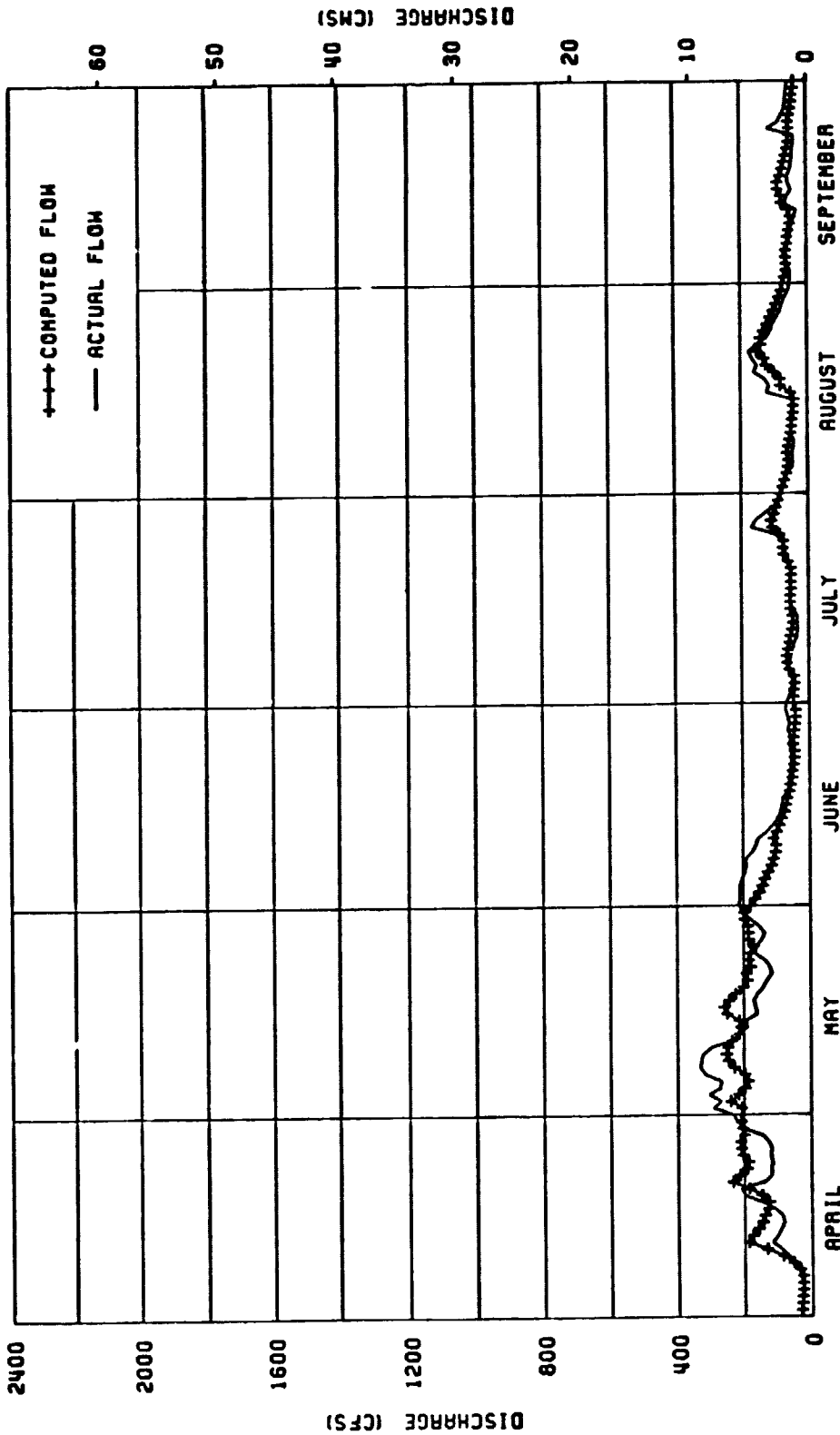


FIGURE 32

SOUTH FORK OF THE RIO GRANDE RIVER AT SOUTH FORK
MODEL RUN FOR 1977 RUN MADE OCTOBER 24, 1980

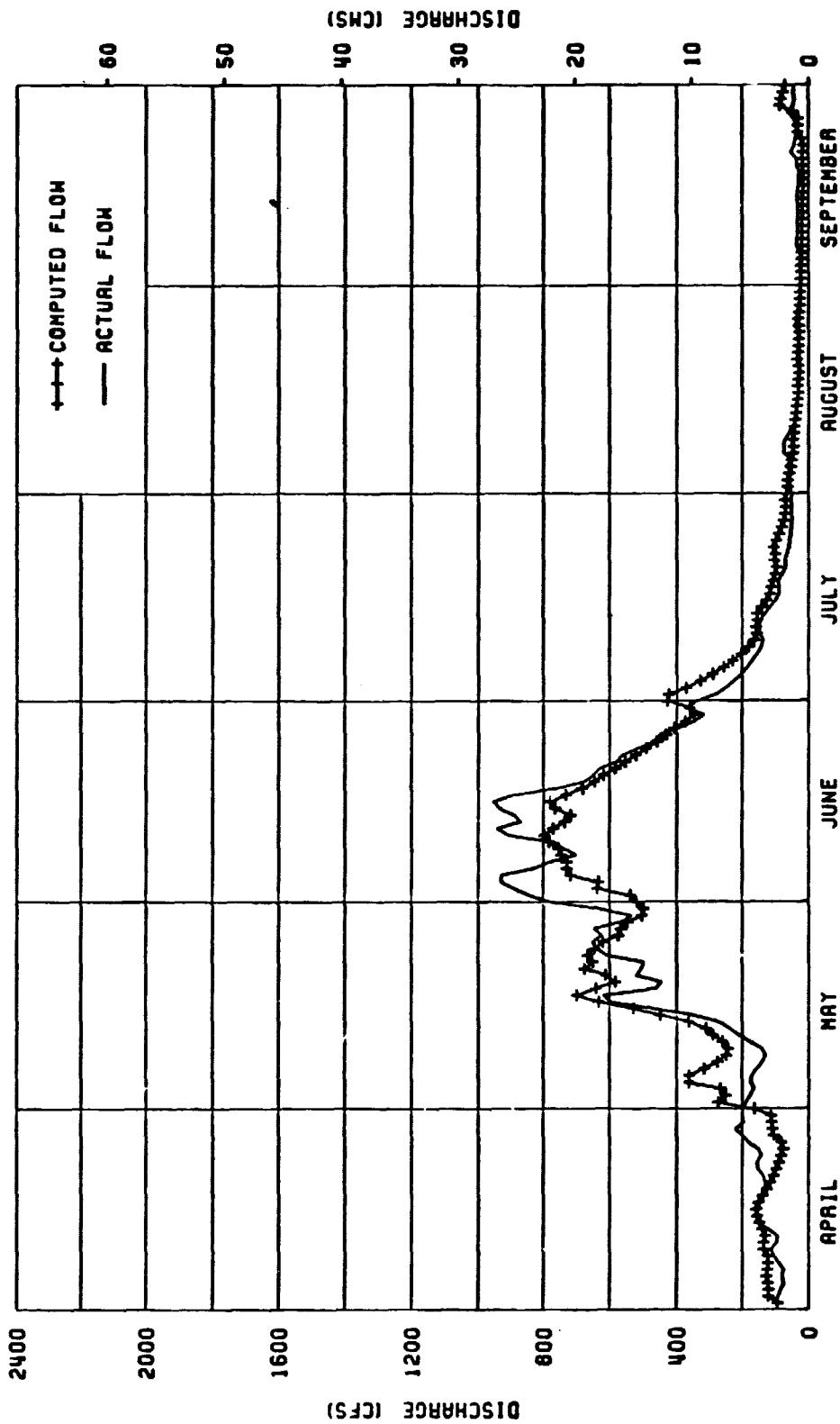
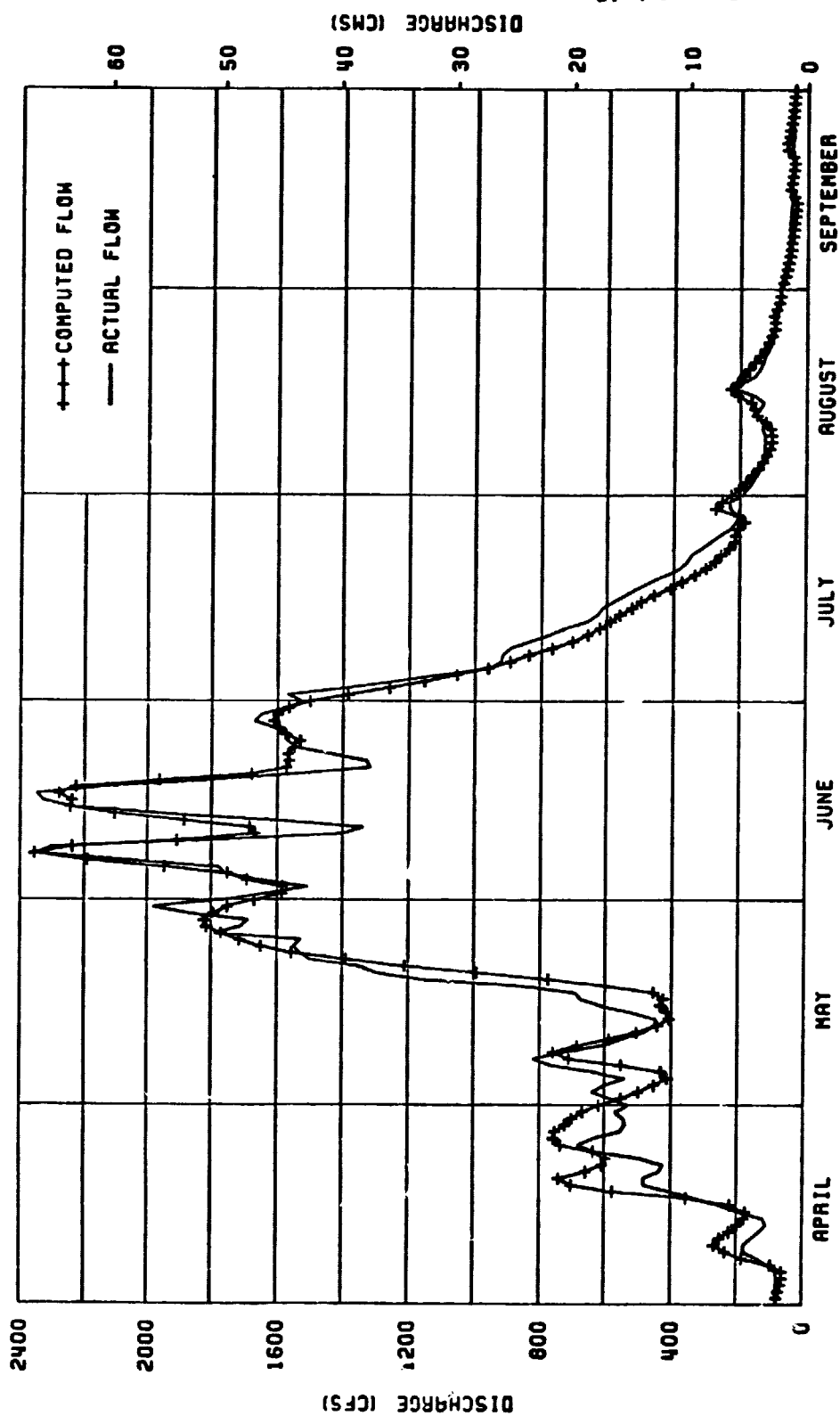


FIGURE 33.
SOUTH FORK OF THE RIO GRANDE RIVER AT SOUTH FORK
MODEL RUN FOR 1978 RUN MADE OCTOBER 24, 1980



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FIGURE 34
SOUTH FORK OF THE RIO GRANDE RIVER AT SOUTH FORK
MODEL RUN FOR 1979 RUN MADE OCTOBER 24, 1980

Table 2
Summary of Simulation Results for
Rio Grande and South Fork

	1973	1974	1975	1976	1977	1978	1979
<u>Rio Grande near Del Norte</u>							
<u>Without routing correction</u>							
Nash-Sutcliffe R^2	0.9558	0.8706	0.8694	0.9320	0.5544	0.8854	0.9663
Seasonal volume difference in percent	-0.59	4.64	2.84	7.26	14.51	0.80	1.31
<u>With routing correction</u>							
Nash-Sutcliffe R^2	0.9552	0.8696	0.8696	0.9320	0.5661	0.8808	0.9666
Seasonal volume difference in percent	-0.59	4.64	2.78	7.25	14.34	2.26	1.33
<u>South Fork of the Rio Grande at South Fork</u>							
Nash-Sutcliffe R^2	0.9371	0.8694	0.8999	0.9440	0.6910	0.9168	0.9747
Seasonal volume difference in percent	-0.77	-0.80	-8.91	-1.51	-0.06	0.21	0.04

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PREDICTIVE MODE DEVELOPMENT USING THE MARTINEC-RANGO SNOWMELT RUNOFF SIMULATION MODEL

INTRODUCTION

Previous work with the Martinec-Rango model has been restricted to simulating streamflow using actual records of climatological and watershed data. This phase of the study focused on the ability to use the model in a real-time predictive mode. The greatest benefit of any snowmelt simulation model is its real-time predictive mode, hence its eventual application in a forecast rather than simulation mode. In the predictive mode this model is potentially capable of making short-term projections of the snowmelt hydrograph on the order of several days. This capability is of paramount importance for such applications as irrigation water management, reservoir management, flood forecasting, and hydropower generation.

In order to run in the predictive mode, estimations must be made of the model parameters and predictions of temperature and precipitation within the basin must be obtained from weather forecasts. One key parameter that must be estimated for the model is the percent of basin snow cover within each elevation zone. Previous studies have used snow-cover data from satellite imagery (Shafer et al. 1981b) (Rango & Martinec, 1979), but real-time availability of this imagery limits its use when the model is applied in the predictive mode. Therefore, other methods must be employed to estimate the snow cover. Another parameter necessary for the model is the melt rate factor, but, as shown in Shafer et al. (1981a), these can be obtained from snow pillow data. The remaining parameters necessary for operation of the model in the predictive mode are the runoff coefficients for each zone. Model performance is very sensitive to the runoff coefficients. Unfortunately, an objective technique to reliably estimate this parameter has not been developed in this study. However, it is possible to develop a "feel" for realistic values from prior simulations and knowledge of the basin's hydrologic response. Additional effort should be devoted to development of objective functions to estimate the runoff coefficients. In the interim, an iteration process over a limited range of c values will yield sufficiently accurate estimates to employ in the model.

Given that all parameters could be estimated and weather forecasts were available, it then requires a method of predicting the snow-cover depletion curves based on data available in a real-time mode. The objective of this effort is to make short period forecasts of the snow cover on each zone within the basin. Martinec & Rango (1982) presented methodologies for developing snow-cover depletion curves based on cumulative degree days. Rango presented families of curves depicting the relationship of snow cover to cumulative degree-days in low, average, and high snowpack years. Selection of which type curve to use for operational purposes was dependent to a large extent on the hydrologist's judgment after weighing several factors including the mean basin snowpack water equivalent, the amount of precipitation occurring on the basin, and the amount of melting that has already occurred. Alternative means were sought to more objectively determine the snow-cover depletion in widely varying snowpack environments where satellite data were lacking. This study investigated several methods of predicting the snow-cover depletion curves based on real-time information.

ESTIMATION TECHNIQUES FOR SNOW-COVER DEPLETION CURVES

Three new techniques were developed and evaluated for estimating snow-cover depletion curves. In order to evaluate the sensitivity of the model to these techniques, the information developed in Shafer et al. (1981a) for the South Fork of the Rio Grande was used for 1973 through 1979. In addition, data present in the previous section of this report for the Rio Grande above Del Norte for 1973 through 1979 were also used.

Multiple Regression Analysis

The first method examined for predicting the snow-cover depletion curves utilized a multiple-regression analysis of April 1 snow-course measurements and cumulative degree days in each zone. The degree days were accumulated from April 1 for each year, 1973 through 1979, for each zone. Using the snow-course data within the basin, estimates of average snow-water equivalents for each zone on April 1 were calculated and used as the second parameter in the analysis. Table 3 shows the snow course used for each zone to determine April 1 average water equivalent. Elevational averages were computed for the mean water equivalent in each zone. The square and cube of the accumulated degree days and water equivalents were used in the regression analysis. Table 4 presents the results of the regression analysis for each zone. Similarly, Table 5 shows the corresponding results for the Rio Grande above Del Norte basin.

Using these predictive regression equations, the model was run for the 1973 through 1979 period and compared to the results of the actual calibrated runs. These results are summarized in Tables 6 and 7. As can be seen from Tables 6 and 7, the Nash Sutcliffe R²s decreased for all years with the poorest fits occurring in 1975 and 1977. In addition, the total predicted volume of runoff ranged from a -17 percent to a +18 percent which is considerably worse than the existing calibrated runs. Appendix G contains the plotted hydrographs for these estimates. For both watersheds Figures 35 through 43 present the actual snow-cover depletion curves for each zone for the years 1977, 1978, and 1979 on the South Fork drainage. Figures 44 through 52 show similar data for the Rio Grande above Del Norte. The estimated snow-cover depletion curves using this technique and the other two techniques presented later in the report are also shown.

Table 3
Snow-Course Data Used for April 1 Water
Equivalent in Linear Estimation Technique

Zone	Snow Course Used ^{1/}	
A	Big Meadow	Pass Creek
B	Upper San Juan	Wolf Creek Pass
C	Wolf Creek Summit	Highway

^{1/} Zone water equivalent was estimated by weighted elevation average of snow-course data.

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Table 4
Multiple Regression Equations Developed
for South Fork Watershed

$$SC = A + B(ACDD) + C(ACDD)^2 + D(ACDD)^3 + E(WE) + F(WE)^2 + G(WE)^3$$

where ACDD = accumulated degree days from April 1

WE = water equivalent for April 1 obtained from snow courses in
Table 3

SC = Zone snow-cover percentage

Constant	Zone A	Zone B	Zone C
A	0.2567	-3.3705	0.47112
B	-0.0025190	-0.0037425	-0.00371108
C	-1.40782×10^{-8}	4.9397×10^{-6}	4.6164×10^{-6}
D	1.599848×10^{-9}	-2.63288×10^{-9}	-2.04708×10^{-9}
E	-0.02629	0.35312	0.021492
F	0.009516	-0.0095234	-0.0003243
G	-0.00025244	0.000085909	2.468×10^{-6}
R ²	0.89	0.88	0.92

Table 5
Multiple Regression Equations Developed
for Rio Grande Watershed

$$S.C. = C_1 + C_2(ACDD) + C_3(ACDD)^2 + C_4(ACDD)^3 + C_5(WE) + C_6(WE)^2 + C_7(WE)^3$$

Constant	Zone 1	Zone 2	Zone 3
C ₁	0.24605	0.71580	0.22339
C ₂	-0.003332	-0.0047133	-0.00477972
C ₃	2.22×10^{-6}	7.633×10^{-6}	7.4739×10^{-6}
C ₄	5.571731×10^{-10}	-5.18099×10^{-9}	-3.86143×10^{-9}
C ₅	-0.07765	-0.03719	0.046839
C ₆	0.014701	0.0019075	-0.00098406
C ₇	-0.00037289	-0.00001951	7.163×10^{-6}
R ²	0.89	0.88	0.94

Table 6
Comparison of Estimation Techniques for Snow-Cover Depletion Curves
for South Fork of the Rio Grande

Actual snow-cover data ^{1/}				Multiple regression		Linear estimation		Parabolic and exponential methods estimation	
N-S $\frac{R^2}{2/}$	Volume errors (%)	N-S $\frac{R^2}{2/}$	Volume errors (%)	N-S $\frac{R^2}{2/}$	Volume errors (%)	N-S $\frac{R^2}{2/}$	Volume errors (%)	N-S $\frac{R^2}{2/}$	Volume errors (%)
1973 0.9371	-0.77	0.9342	-12.81	0.9221	5.38	0.9296	-6.90		
1974 0.8694	-0.80	0.8810	4.81	0.8826	7.73	0.8342	1.41		
1975 0.8999	-8.91	0.9038	8.61	0.0758	35.28	0.8216	14.80		
1976 0.9440	-1.51	0.9333	2.58	0.8656	15.10	0.8869	11.30		
1977 0.6910	-0.06	0.2700	17.94	0.4766	-15.55	0.4730	11.72		
1978 0.9168	0.21	0.7893	4.10	0.7245	22.37	0.7392	17.45		
1979 0.9747	0.04	0.9632	-3.60	0.7584	21.10	0.8966	-15.79		
Ave. 0.8904	1.69	0.8154	12.57	0.6722	17.50	0.7973	11.34		

^{1/} From: Shafer et al. (1981a)

^{2/} Nash-Sutcliffe R^2

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Table 7
Comparison of Estimation Techniques for Snow-Cover Depletion Curves
for Río Grande above Del Norte

Actual snow-cover data ^{1/}				Multiple regression		Linear estimation		Parabolic and exponential methods estimation	
N-S R^2 2/	Volume errors (%)	N-S R^2 2/	Volume errors (%)	N-S R^2 2/	Volume errors (%)	N-S R^2 2/	Volume errors (%)	N-S R^2 2/	Volume errors (%)
1973 0.9552	-0.59	0.9252	-8.18	0.6709	18.15	0.8935	9.23		
1974 0.8696	4.64	0.8698	2.02	0.8477	14.21	0.6678	-25.73		
1975 0.8696	2.78	0.7683	22.09	-0.1078	36.85	0.5581	25.83		
1976 0.9320	7.25	0.9173	8.48	0.7609	21.28	0.9397	4.39		
1977 0.5661	14.34	0.2396	24.26	0.3504	24.28	0.3170	21.91		
1978 0.8808	2.26	0.6623	23.57	0.5529	28.62	0.5543	11.55		
1979 0.9666	1.33	0.9520	-4.26	0.9070	15.69	0.9164	-12.71		
Ave. 0.8628	4.57	0.7521	9.71	0.5689	22.73	0.7495	4.92		

^{1/} From: Shafer et al. (1981a)

^{2/} Nash-Sutcliffe R^2

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Linear Estimation

The second technique analyzed for estimation of snow-cover depletion curves was based on estimating three points of the snow-cover depletion curve. These points were the break point (the point at which the snow cover in the zone becomes less than 100 percent), the 50 percent snow-cover point, and the 0 percent snow-cover point. The linear estimation equations were developed using 1973-81 data.

Predictions of these three points on the curve were made utilizing cumulative degree days and the same mean zonal April 1 water equivalents of snow-course data. Table 3 summarizes the snow courses used for the April 1 water equivalent estimate. These snow-course values were adjusted by altitude to the mean altitude in each zone. Degree days were accumulated from the break-point date for estimation of the 50 and 0 percent snow-cover dates. The break-point date was estimated using regression analysis of the April 1 water equivalents. Summary of the regression equations in this technique are shown in Table 8. The accompanying data for the Rio Grande above Del Norte is shown in Table 9.

Intermediate values on the snow-cover curve were then estimated utilizing linear relationships between snow-cover depletion and cumulative degree days from April 1. The predicted snow-cover curves using this technique are shown in Figures 35 through 52 for the years 1977 through 1979. As evidenced from these figures the estimation of snow cover is generally poorer than utilizing the multiple regression technique. Results of the model runs are presented in Tables 6 and 7 and again show similar variation with the multiple regression technique.

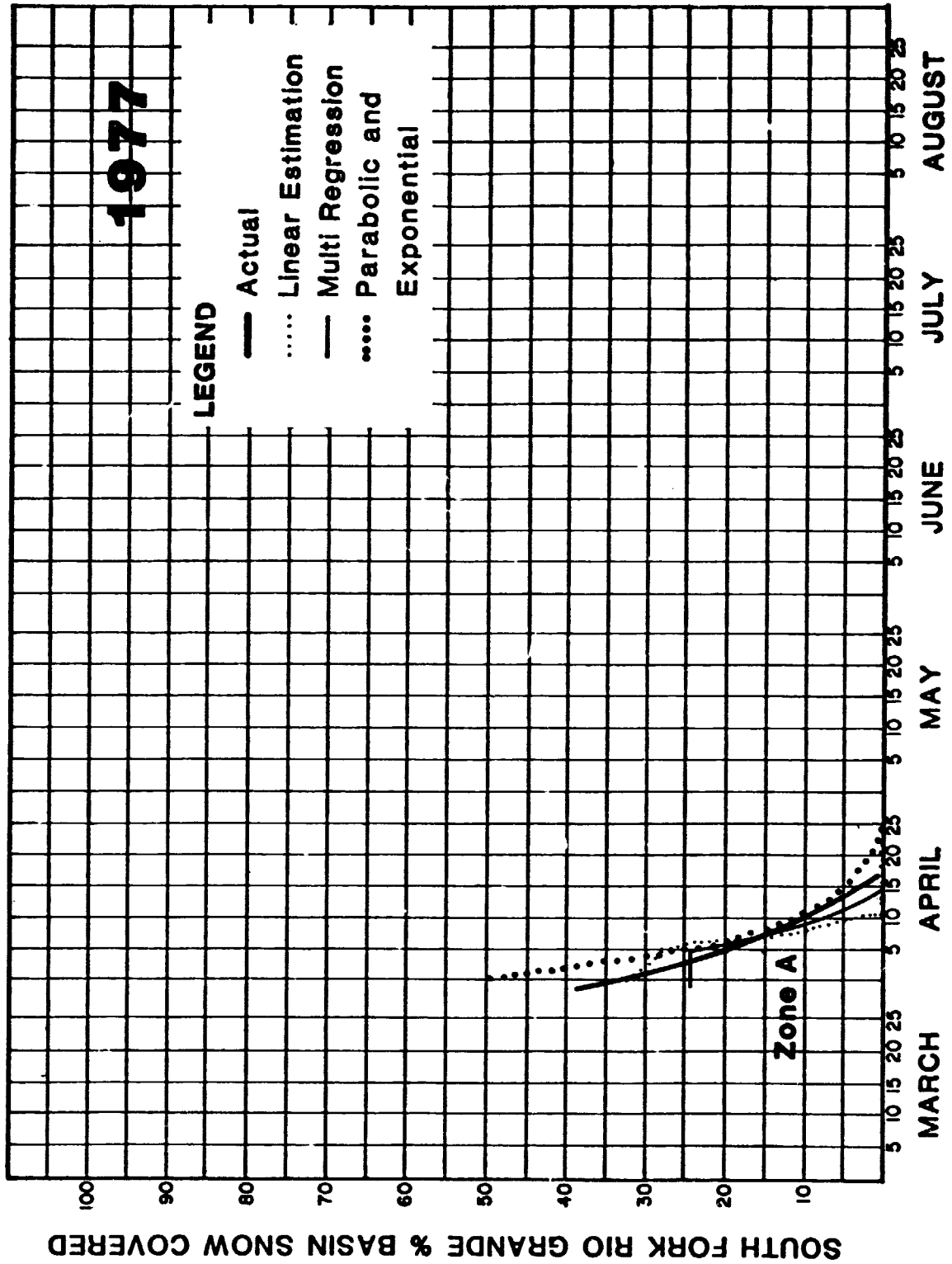


Fig. 35. Actual and Estimated Snow-Cover Depletion Curve--South Fork Rio Grande, 1977 - Zone A.

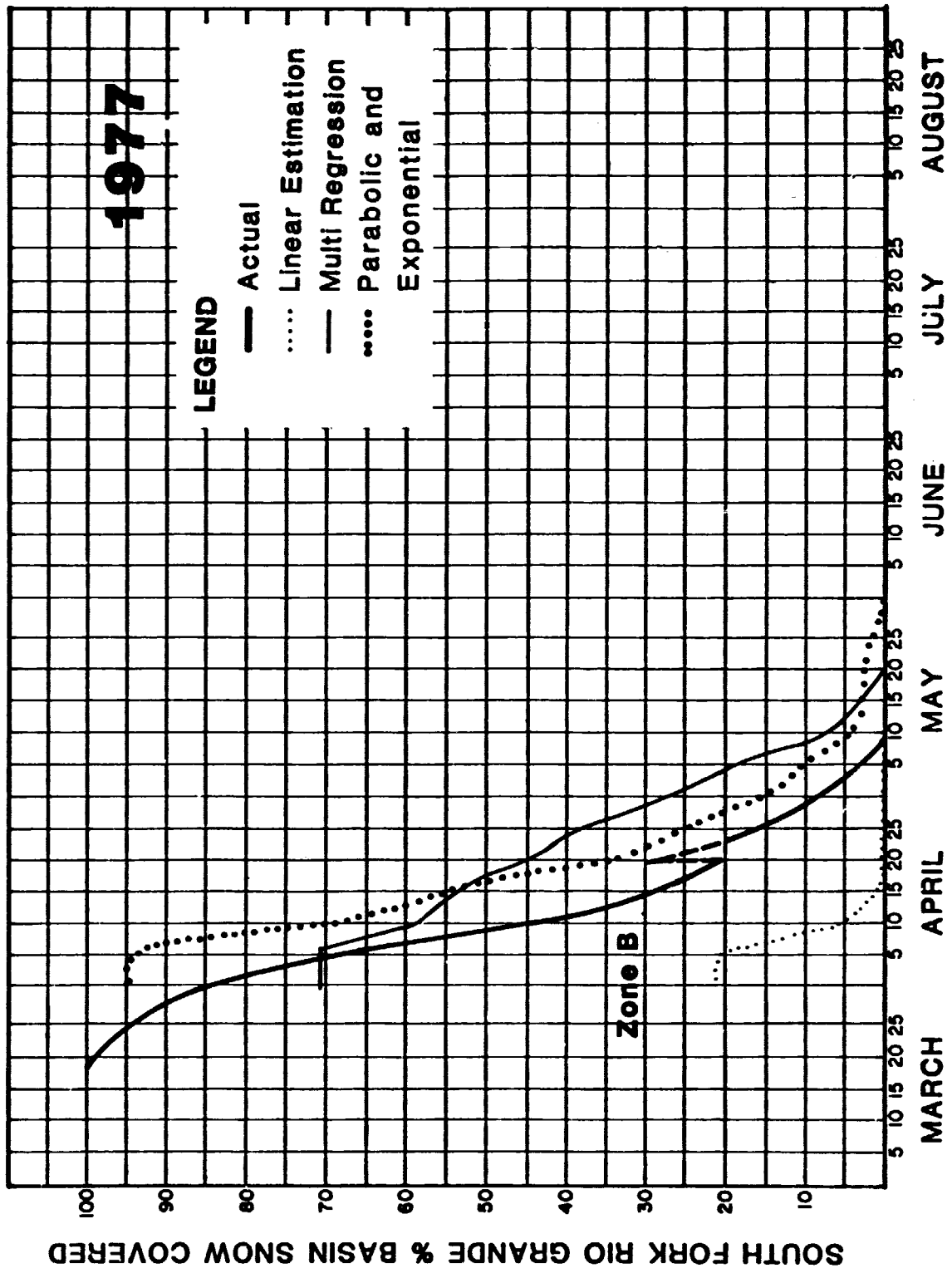


Fig. 36. Actual and Estimated Snow-Cover Depletion Curve--South Fork Rio Grande, 1977 - Zone B.

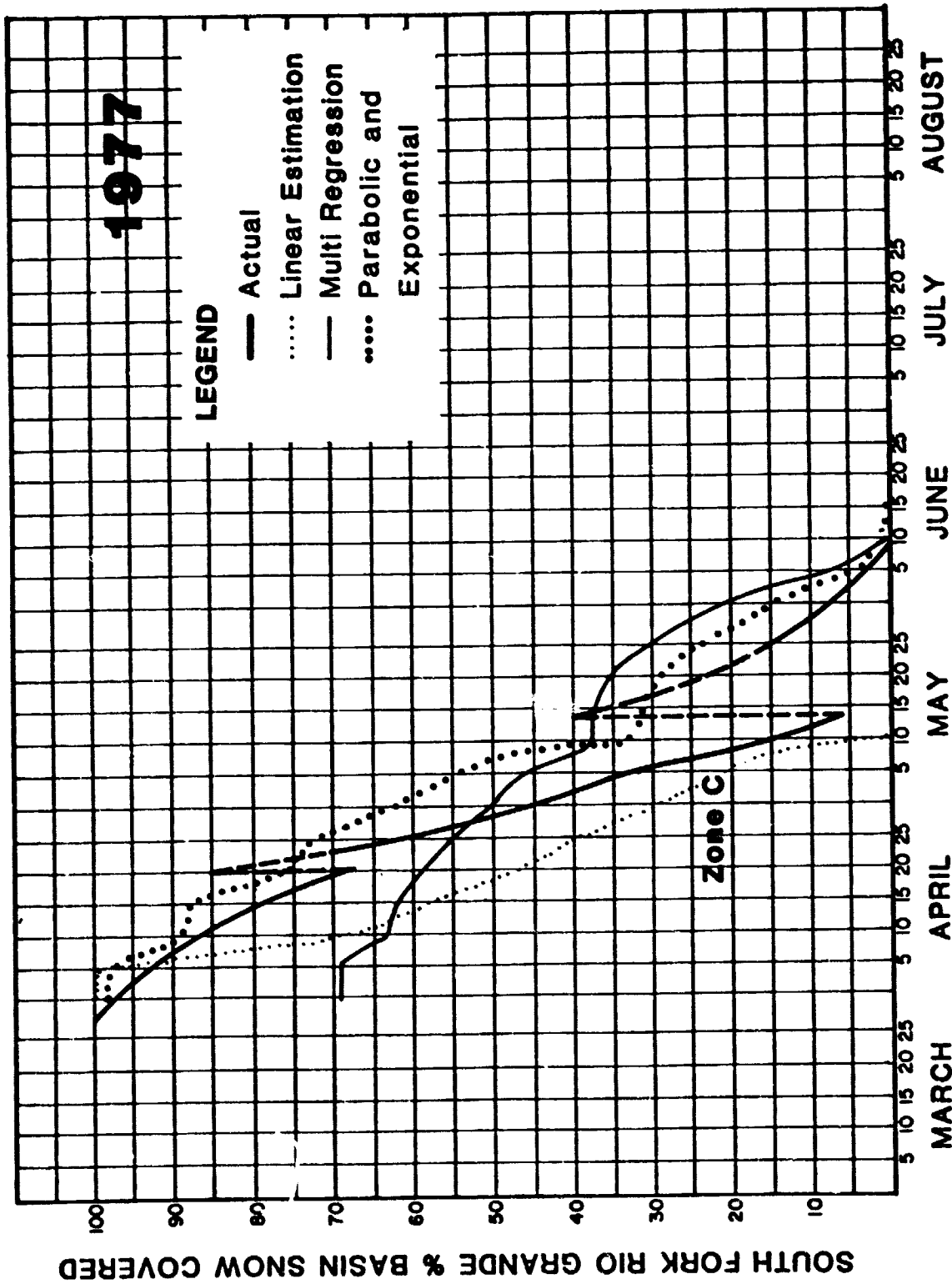


Fig. 37. Actual and Estimated Snow-Cover Depletion Curve--South Fork Rio Grande, 1977 - Zone C.

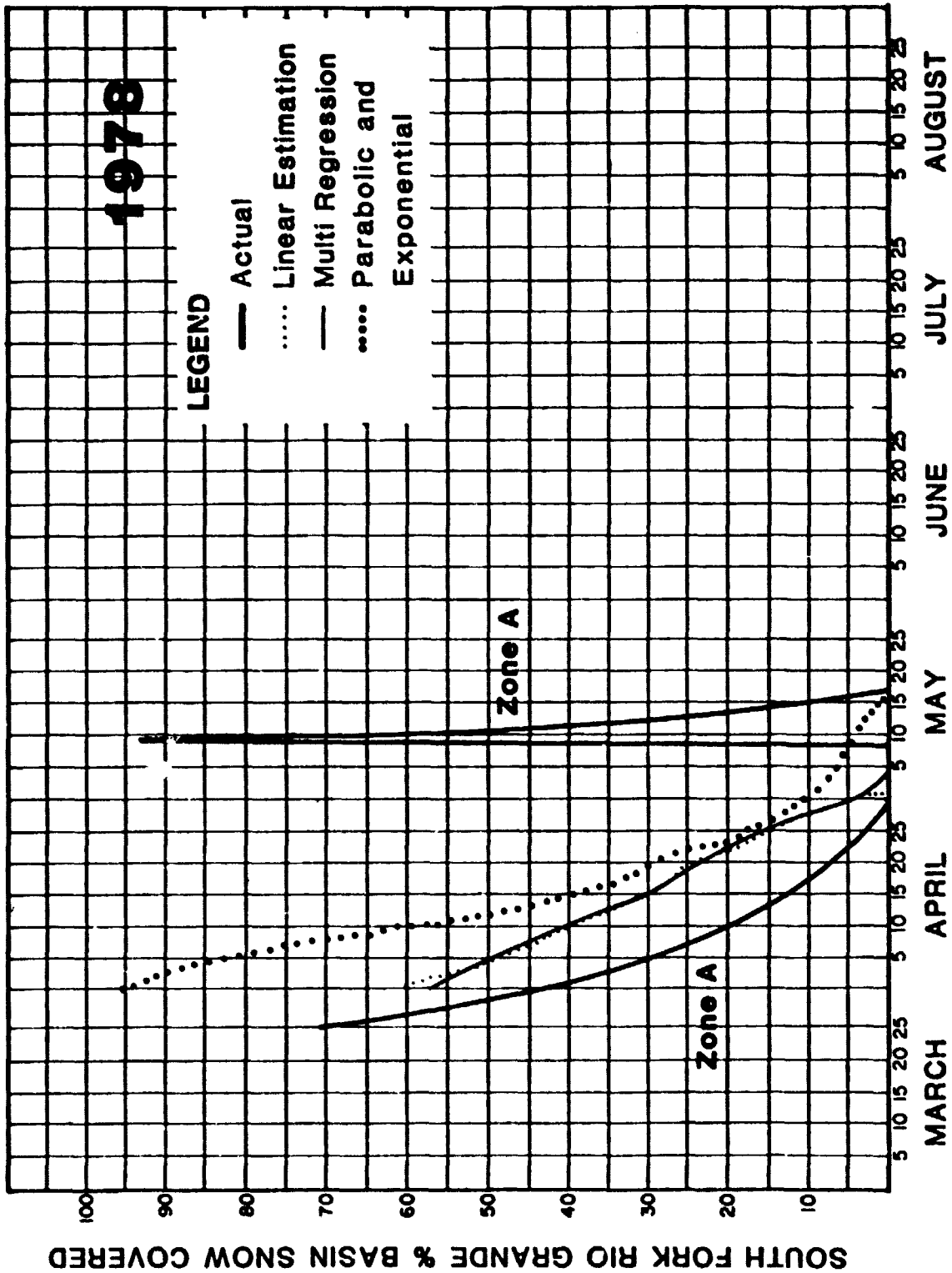


Fig. 38. Actual and Estimated Snow-Cover Depletion Curve--South Fork Rio Grande, 1978 - Zone A.

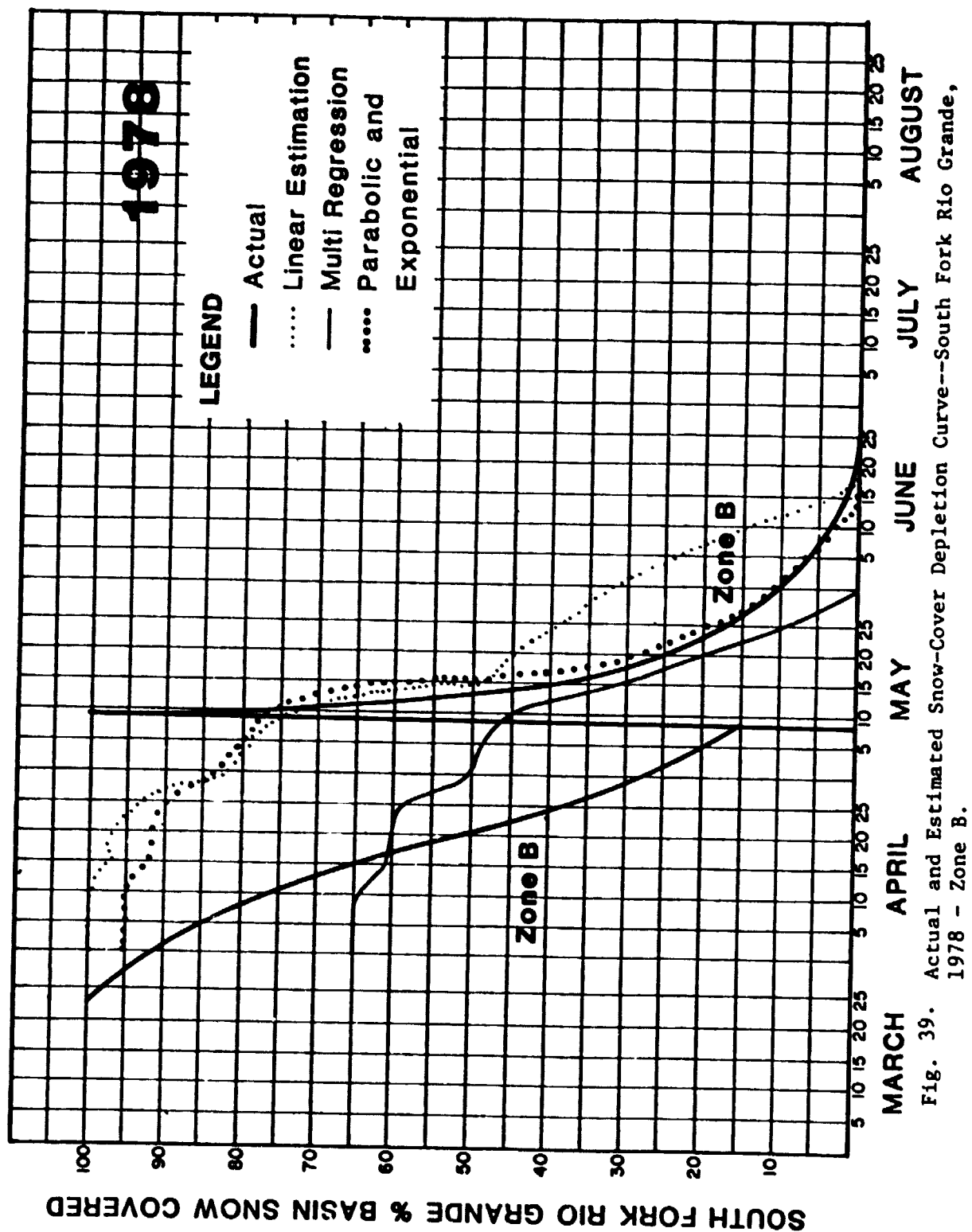


Figure 40 is a line graph titled "SOUTH FORK RIO GRANDE % BASIN SNOW COVERED" on the Y-axis and months on the X-axis. The Y-axis ranges from 0 to 100 in increments of 10. The X-axis shows months from March to August, with specific dates marked: March (5, 10, 15, 20, 25), April (5, 10, 15, 20, 25), May (5, 10, 15, 20, 25), June (5, 10, 15, 20, 25), July (5, 10, 15, 20, 25), and August (5, 10, 15, 20, 25). The graph displays the depletion curve for Zone C, showing the percentage of basin snow covered over time. The actual data is represented by a solid line, and the regression curves are shown as dotted lines. The depletion curve starts at approximately 95% in March and decreases to 0% by August. The regression curves provide different estimates of the depletion rate, with the Multi Regression curve (solid line) and the Parabolic and Exponential curve (dotted line) showing a more gradual decline compared to the Linear Estimation curve (dotted line). The graph is labeled "Zone C" in two locations: once in the upper left and once in the lower right.

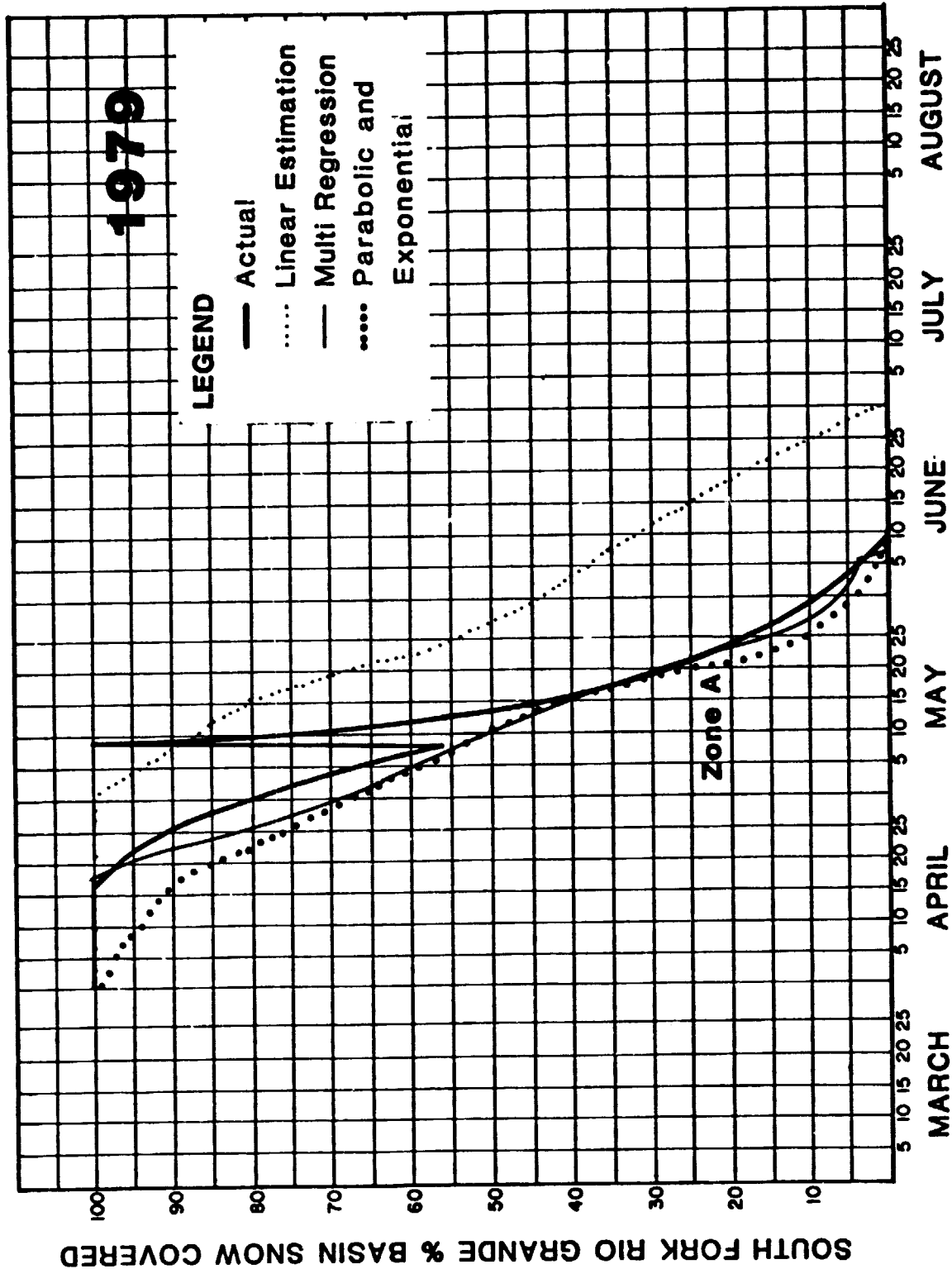


Fig. 41. Actual and Estimated Snow-Cover Depletion Curve--South Fork Rio Grande, 1979 - Zone A.

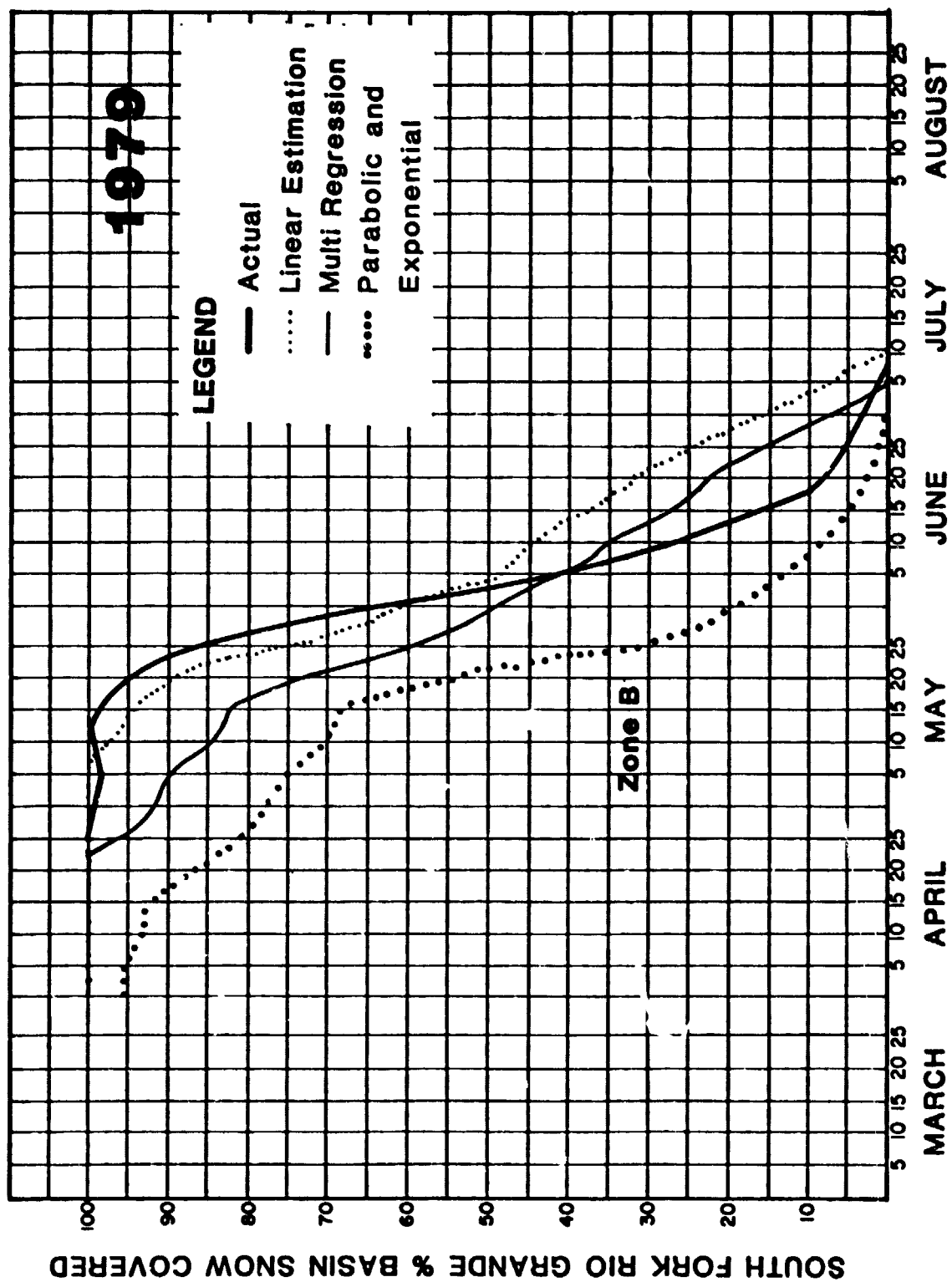


Fig. 42. Actual and Estimated Snow-Cover Depletion Curve--South Fork Rio Grande, 1979 - Zone B.

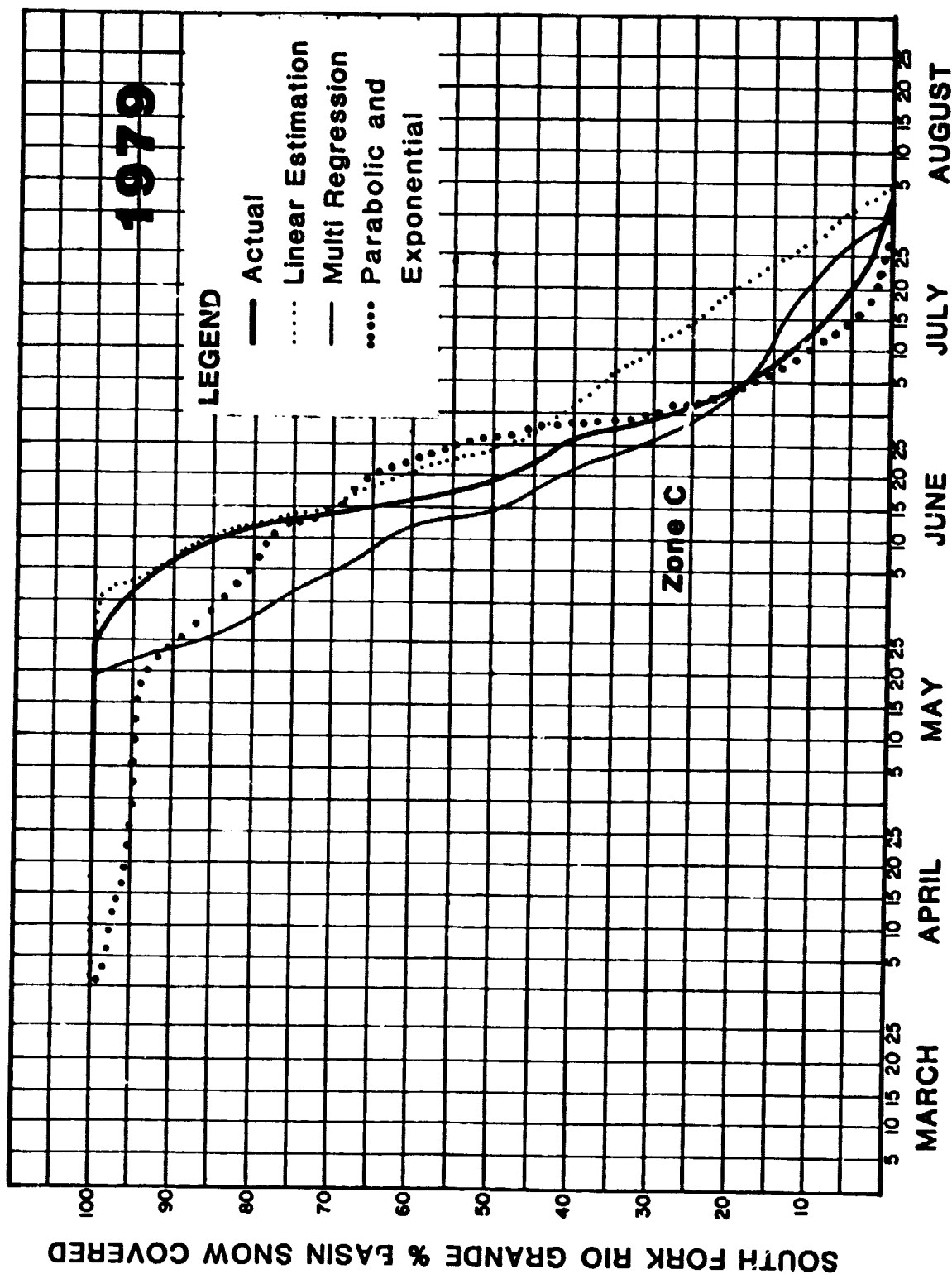


Fig. 43. Actual and Estimated Snow-Cover Depletion Curve--South Fork Rio Grande, 1979 - Zone C.

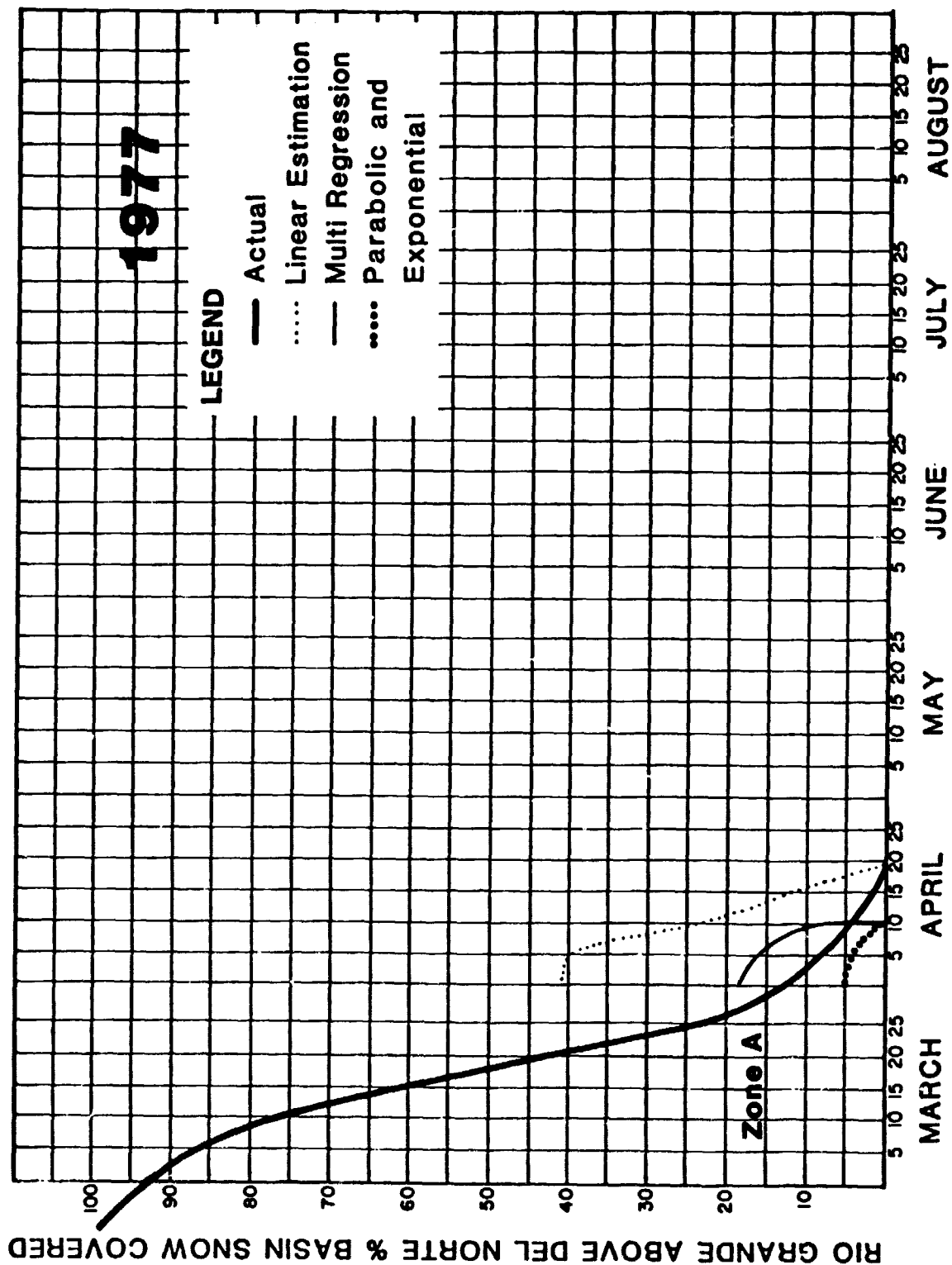


Fig. 44. Actual and Estimated Snow-Cover Depletion Curve--Rio Grande above Del Norte, 1977 - Zone A.

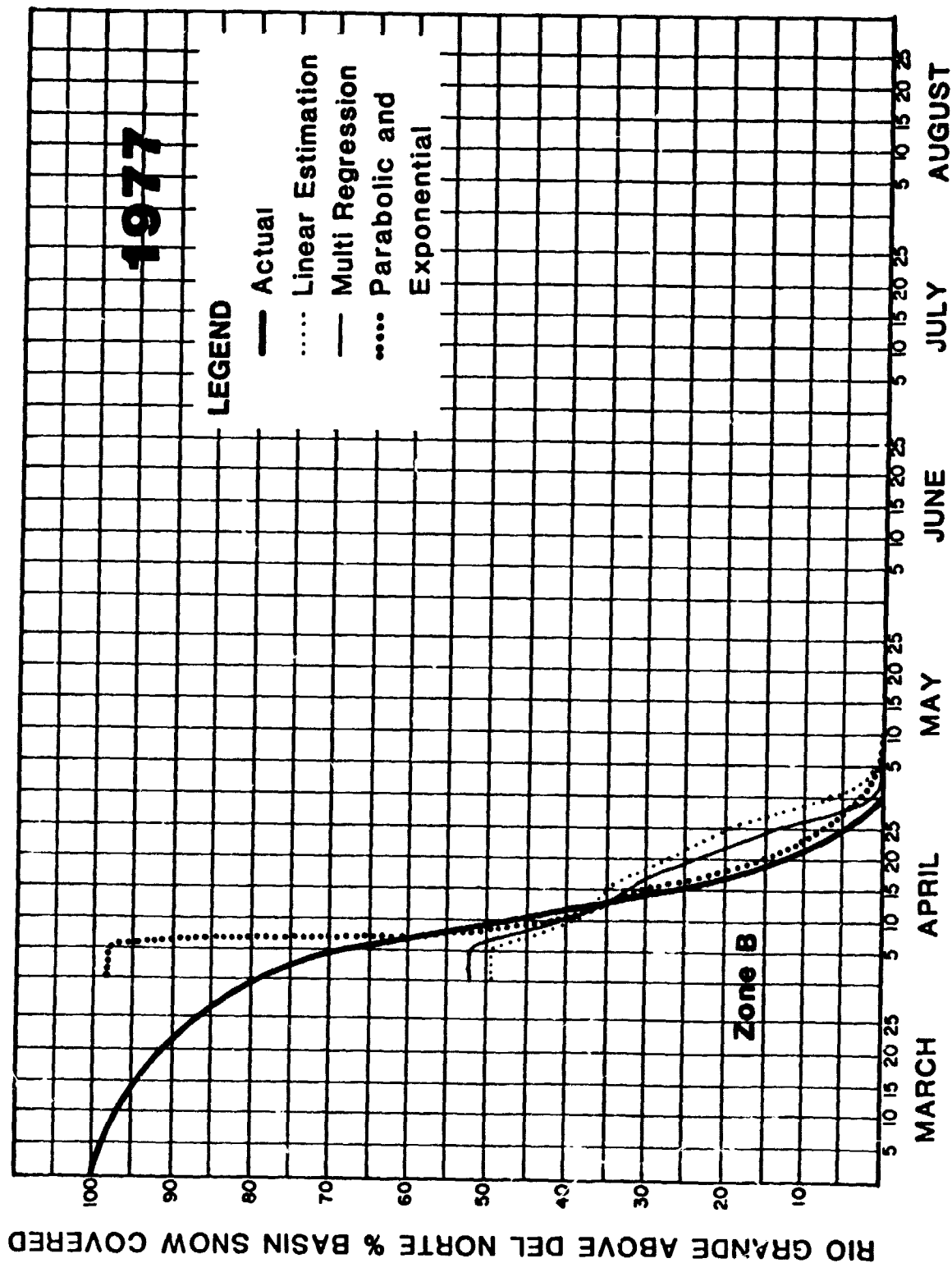


Fig. 45. Actual and Estimated Snow-Cover Depletion Curve--Rio Grande above Del Norte, 1977 - Zone B.

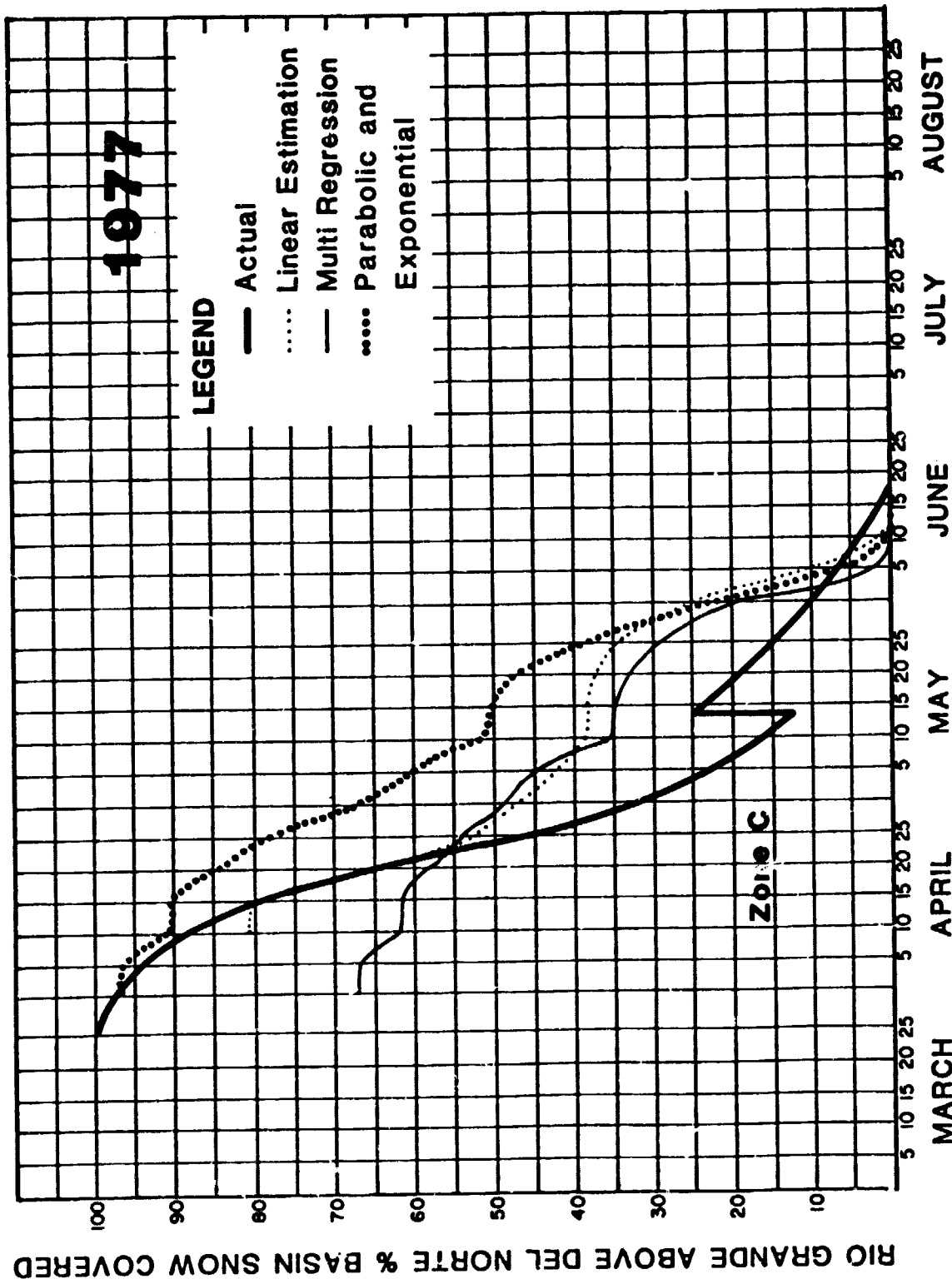


Fig. 46. Actual and Estimated Snow-Cover Depletion Curve--Rio Grande above Del Norte, 1977 - Zone C.

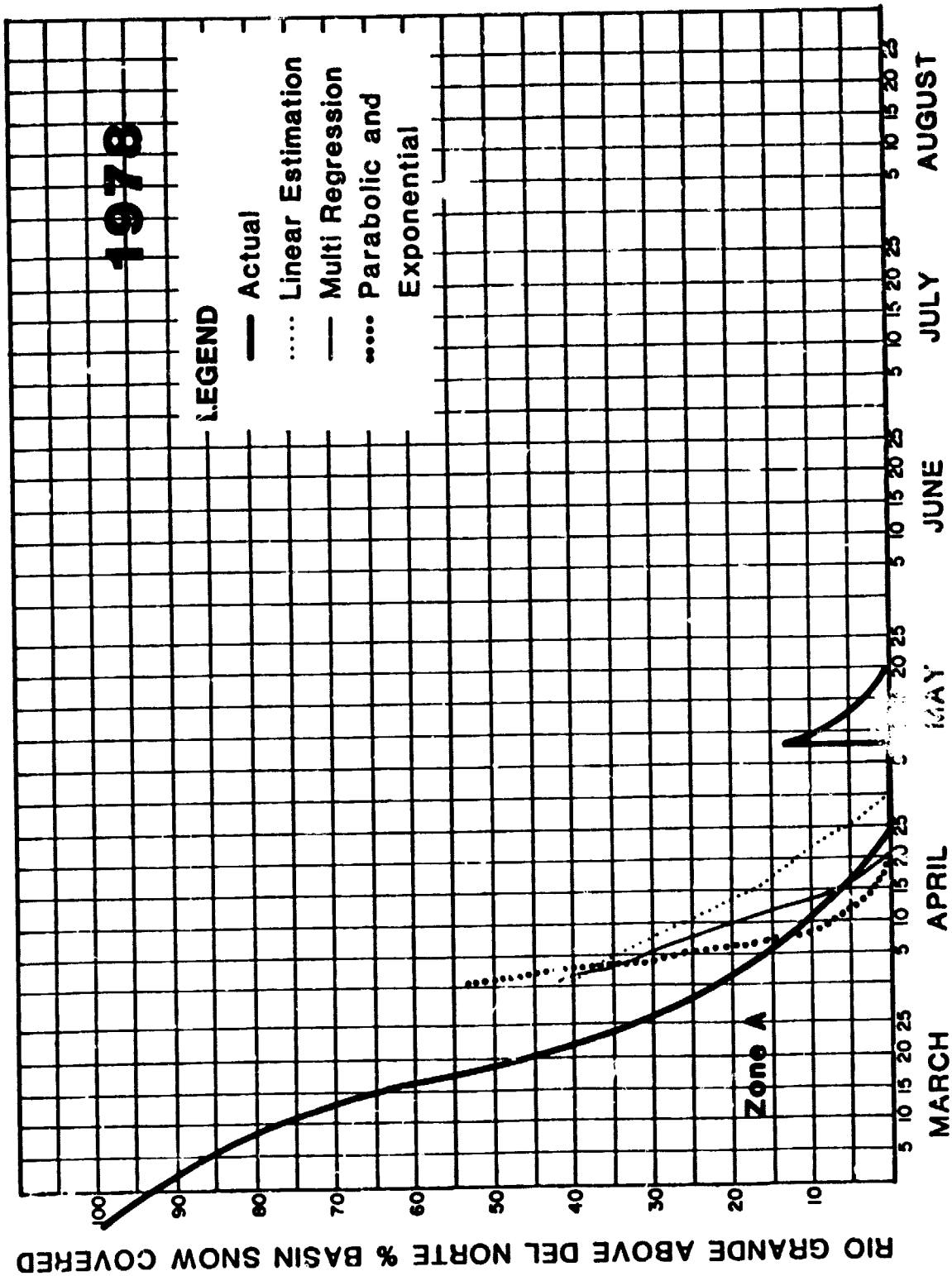


Fig. 47. Actual and Estimated Snow-Cover Depletion Curve---Rio Grande above Del Norte, 1978 - Zone A.

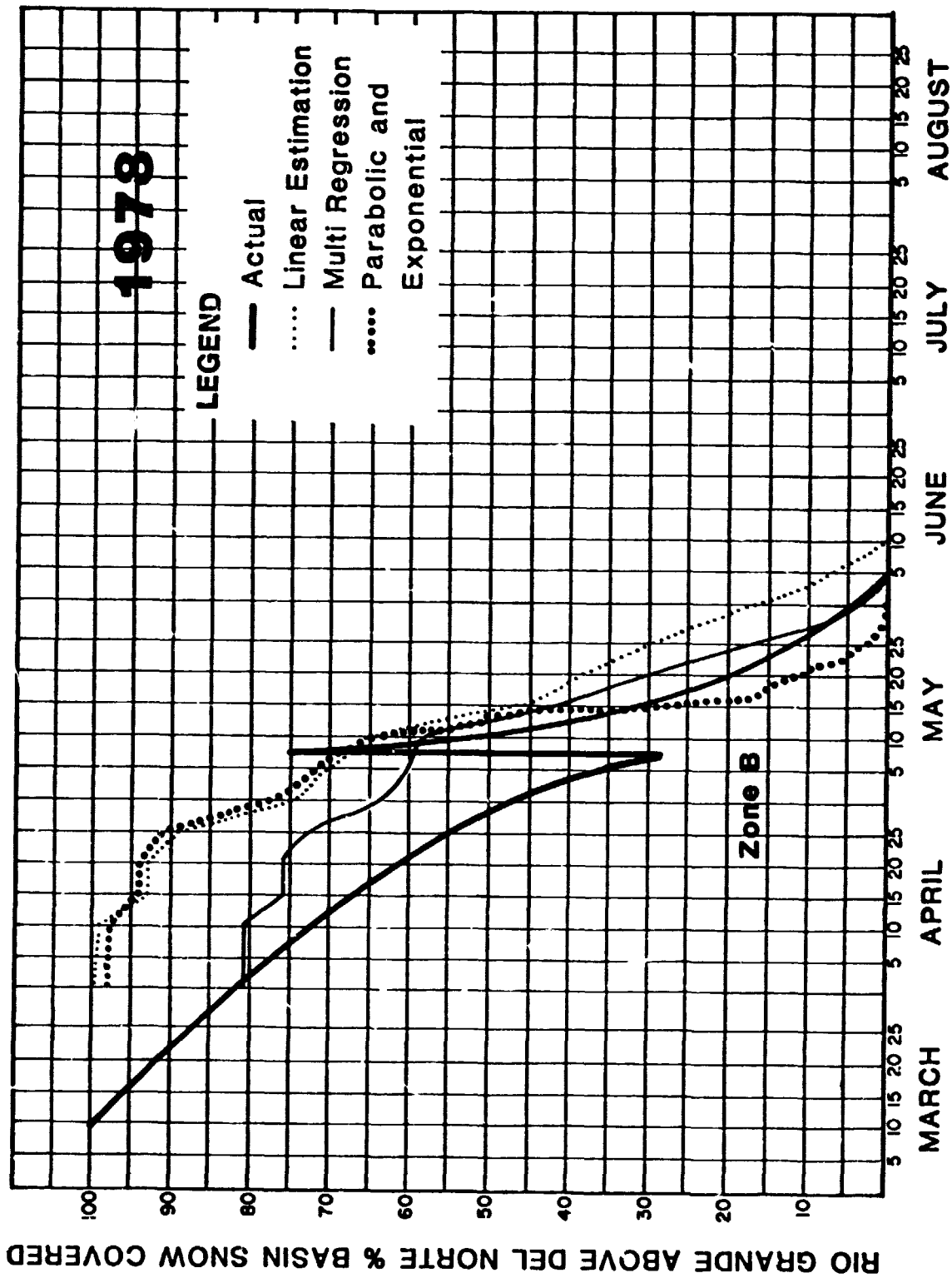
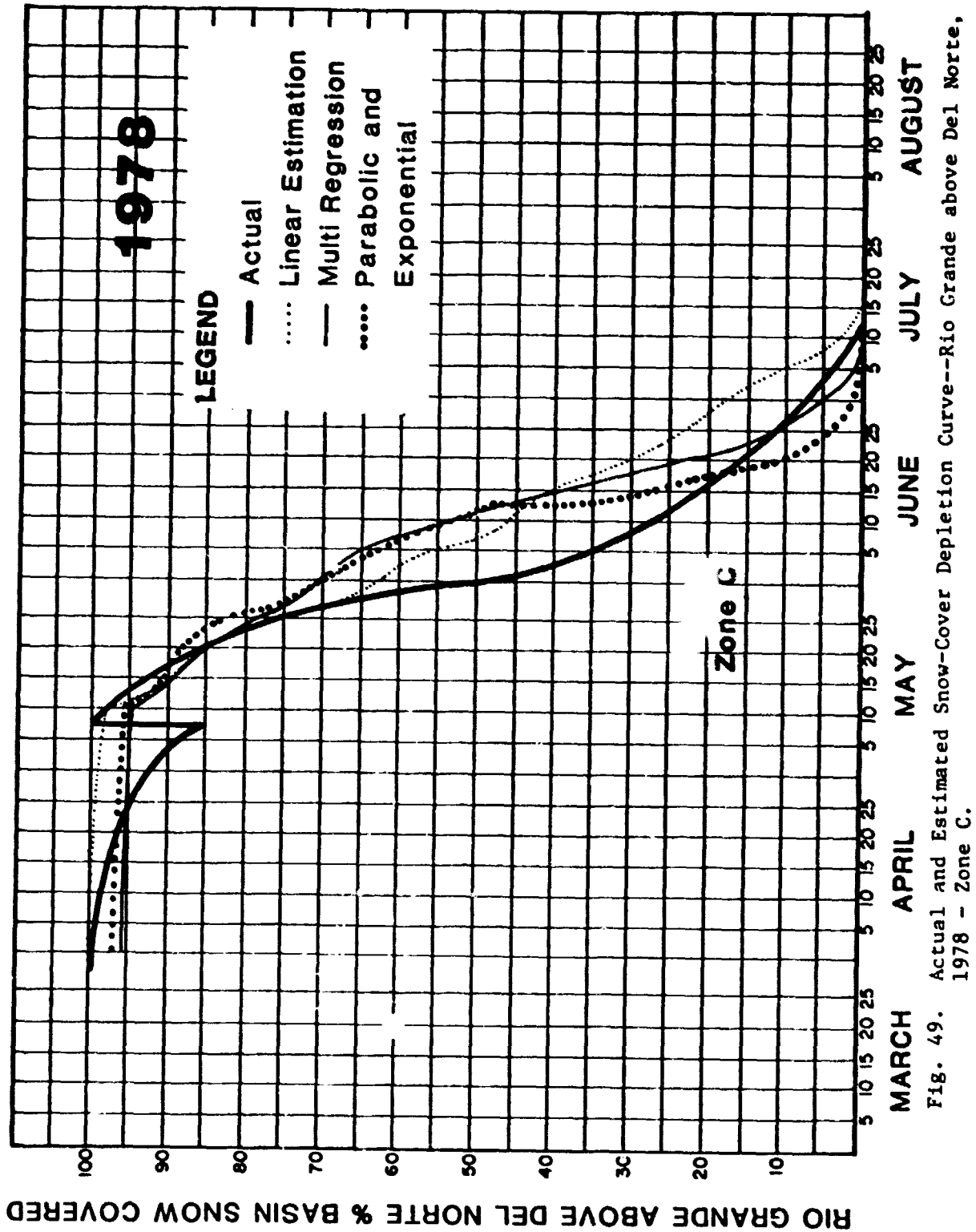


Fig. 48. Actual and Estimated Snow-Cover Depletion Curve--Rio Grande above Del Norte, 1978 - Zone B.



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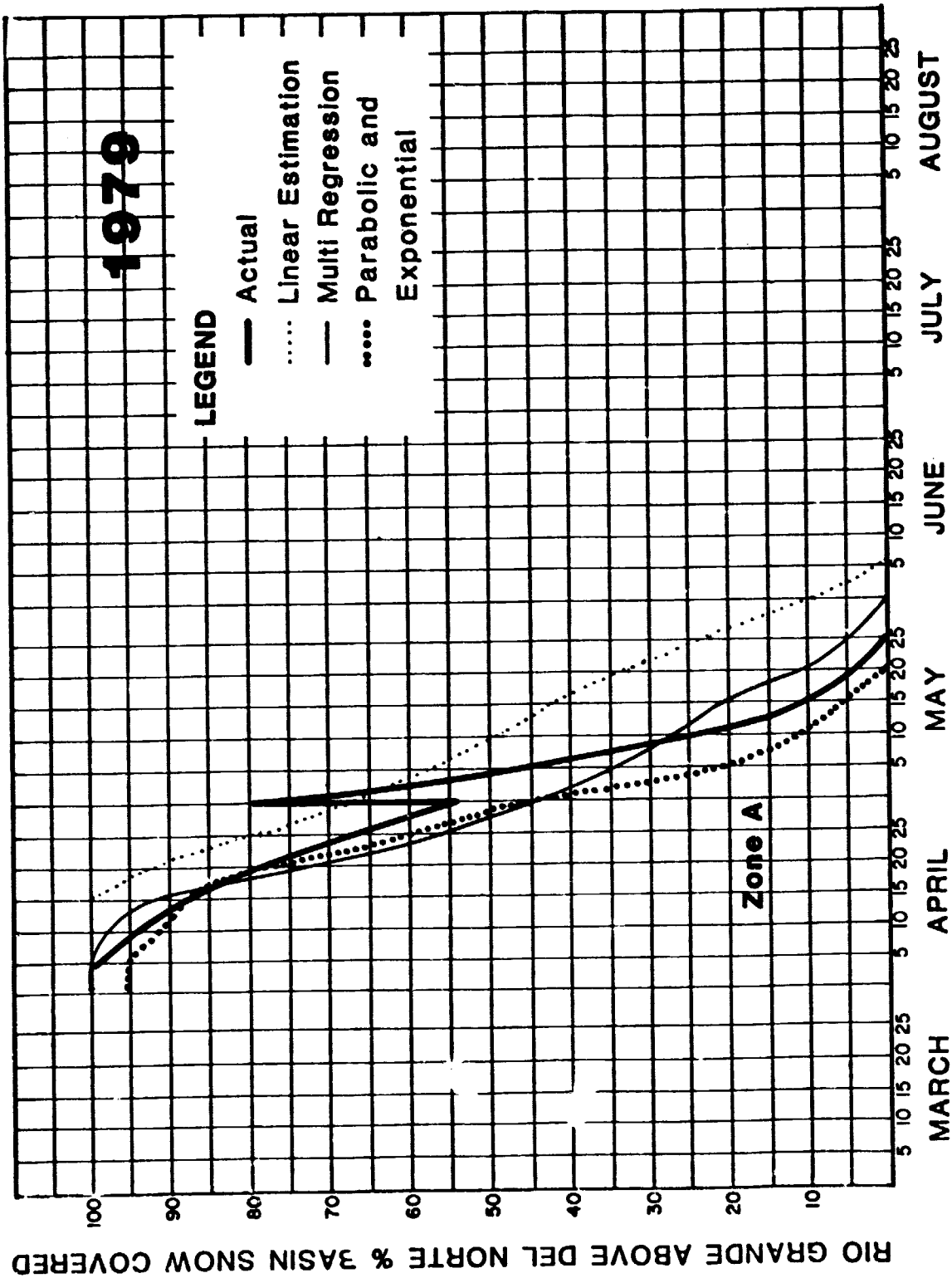


Fig. 50. Actual and Estimated Snow-Cover Depletion Curve--Rio Grande above Del Norte, 1979 - Zone A.

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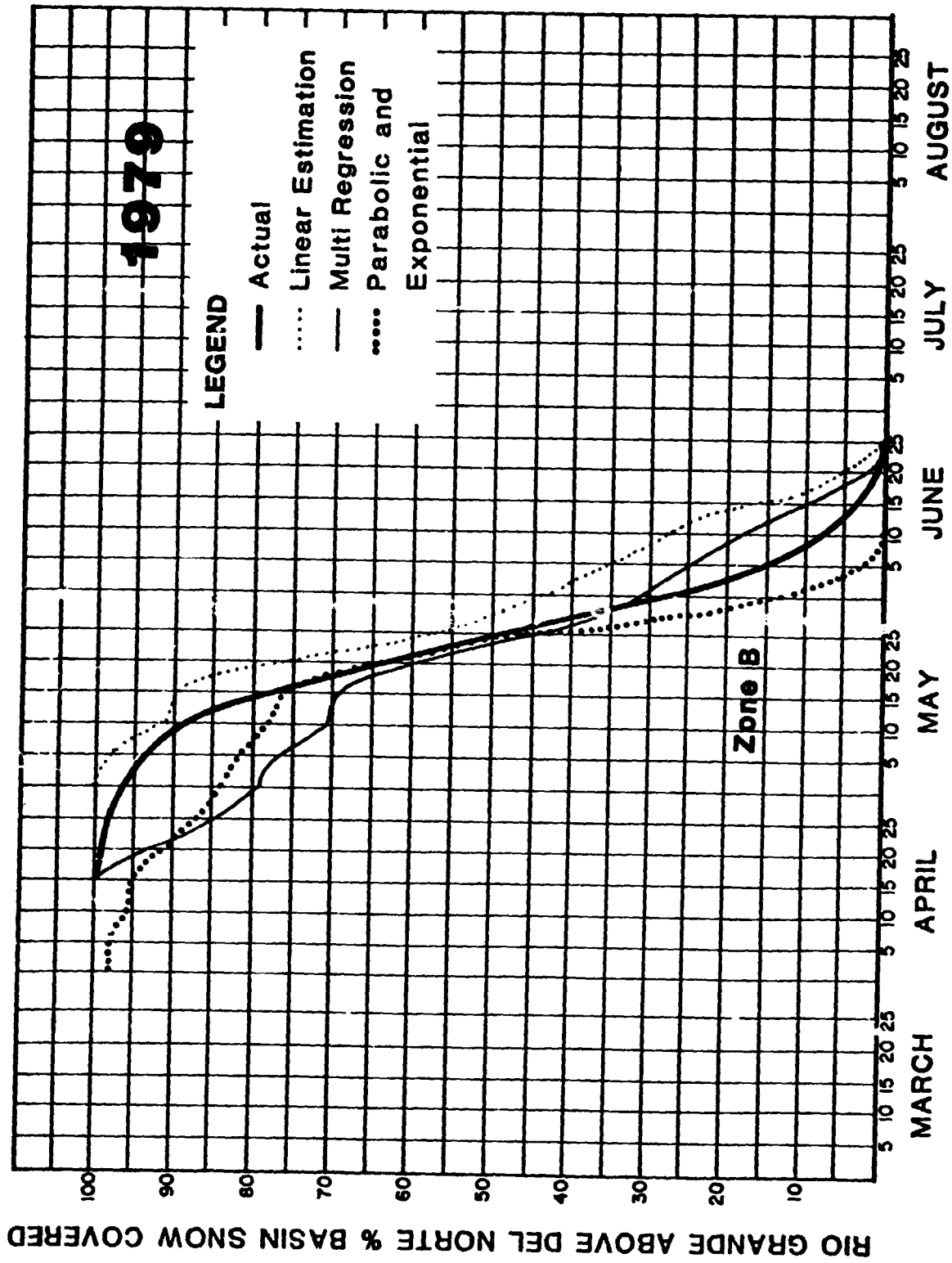


Fig. 51. Actual and Estimated Snow-Cover Depletion Curve--Rio Grande above Del Norte, 1979 - Zone B.

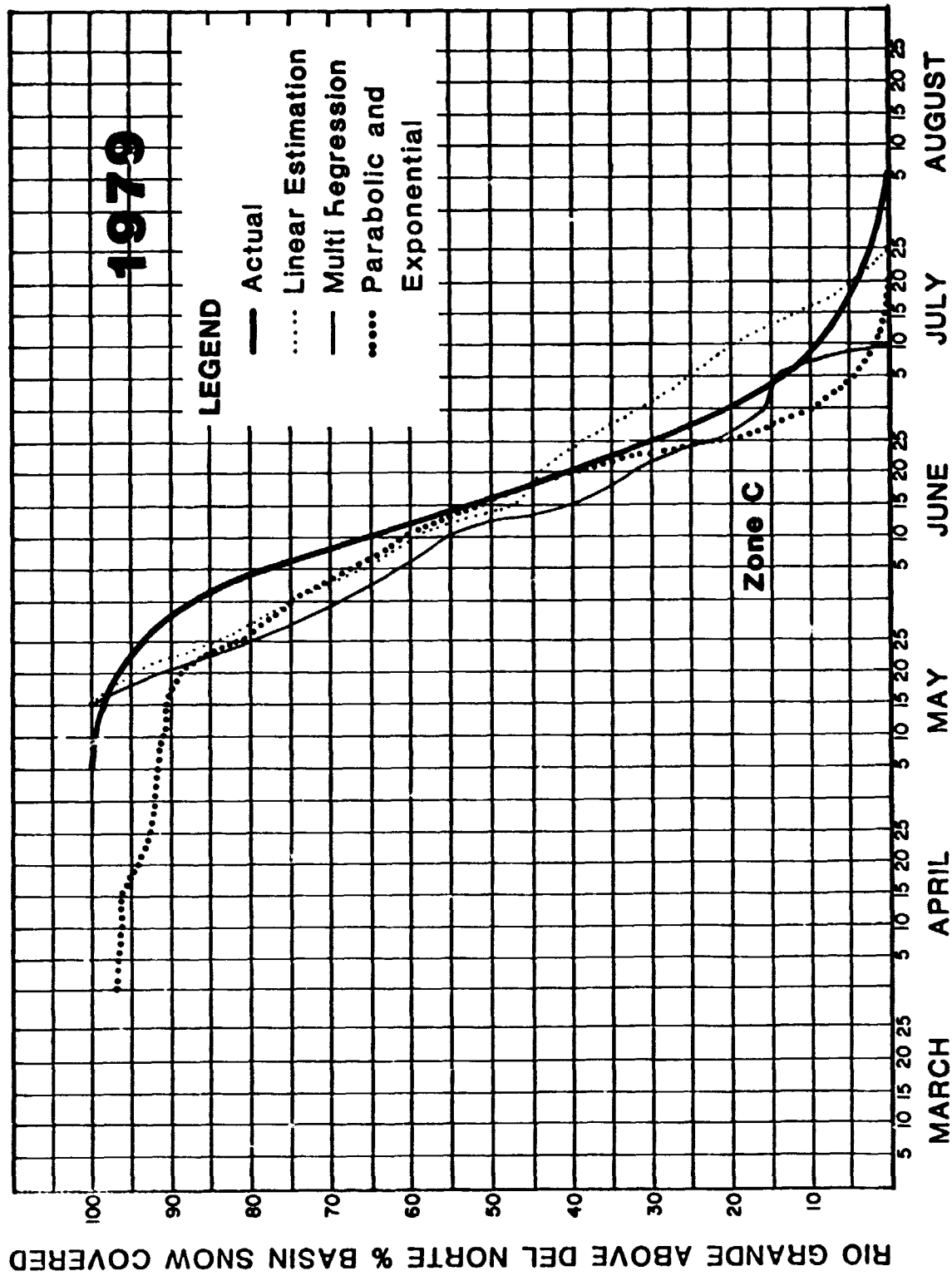


Fig. 52. Actual and Estimated Snow-Cover Depletion Curve--Rio Grande above Del Norte, 1979 - Zone C.

Table 8
Summary of Regression Equations Used
in Linear Estimation Technique for South Fork

$$\begin{aligned} BP &= A + B(WE) \\ (ACDD_{50}) &= C + D(WE) \\ (ACDD_0) &= E + F(WE) \end{aligned}$$

where BP = Break point day from April 1 (first day of less than 100% snow cover)

WE = Water equivalent on April 1

(ACDD₅₀) = Accumulative degree days from break point to 50% snow cover

(ACDD₀) = Accumulative degree days from 50% snow cover to 0% snow cover

Zone	Break point			(ACDD ₅₀)			(ACDD ₀)		
	A	B	r ²	C	D	r ²	E	F	r ²
A	-25.83	1.911	0.524	-2.59	10.811	0.816	-2.69	24.45	0.511
B	-20.66	1.077	0.720	-129.3	7.264	0.540	-9.046	12.55	0.681
C	-15.65	1.157	0.806	-21.94	3.765	0.689	-85.53	13.43	0.806

Table 9
Summary of Regression Equations Used
in Linear Estimation Technique for Rio Grande

$$\begin{aligned} \text{BP} &= A + B(\text{WE}) \\ (\text{ACDD}_{50}) &= C + D(\text{WE}) \\ (\text{ACDD}_0) &= E + F(\text{WE}) \end{aligned}$$

where BP = Break point day from April 1 (first day of less than 100% snow cover)

WE = Water equivalent on April 1

(ACDD₅₀) = Accumulative degree days from break point to 50% snow cover

(ACDD₀) = Accumulative degree days from 50% snow cover to 0% snow cover

Zone	Break point			(ACDD ₅₀)			(ACDD ₀)		
	A	B	r ²	C	D	r ²	E	F	r ²
A	-36.31	1.781	0.516	-21.99	8.521	0.713	180.92	7.50	0.236
B	-43.10	1.399	0.704	-35.87	3.768	0.641	118.19	4.36	0.309
C	-26.89	1.037	0.734	1.17	2.310	0.572	86.38	8.15	0.642

PARABOLIC AND EXPONENTIAL ESTIMATION

The third technique analyzed is similar to the linear estimation technique presented previously. The following modifications were made from the linear estimation technique: (1) substitution of April-September streamflow volume for water equivalent as a measure of water stored in the form of snow; (2) modification of the accumulation periods for degree days; and (3) development of a parabolic function for 100 percent to 50 percent snow cover and an exponential function from 50 percent to 0 percent snow cover (hence the notation parabolic and exponential estimation).

The first modification involved developing a relationship between April-September streamflow volumes and the date of the 50 percent snow cover and the date of a 0 percent snow cover. In an operational forecast mode the 50 percent snow-cover date would be generated from April-September streamflow forecasts on April 1. The 0 percent snow-cover date would be determined operationally using May 1 seasonal volume forecasts.

The final modification of the linear estimation technique was to utilize a parabolic fit of the accumulated degree days to snow-cover curve from the 100 percent cover to 50 percent cover using actual data for this interval. The snow-cover depletion curve for less than 50 percent cover was predicted using an exponential fit relating accumulative degree days to snow-cover depletion. This fit was obtained using the observed data in the interval of 50 percent snow cover to 0 percent snow cover. Because of the separate fitting procedures, a discontinuity exists at the 50 percent snow-cover point. These fitting procedures used 1973-81 data. Table 10 summarizes the equations used for the prediction of snow-cover depletion curves for South Fork, and Table 11 shows similar information for the Rio Grande.

The results of these estimates are shown in Figures 35 through 52. The results of model runs are shown in Tables 6 and 7.

Generally the results utilizing this method are as good as the results utilizing the multiple regression technique. There are two advantages of this method over the multiple regression technique. The first is the ability to change the lower portion of the curve (ACDD₀) as a result of May 1 estimates of watershed yield, and the second is the ability to adjust the estimated ACDD₅₀ and ACDD₀ with actual imagery during the course of the melt season. This adjustment is a result of the normalized equations in which snow cover is determined by a ratio of accumulated degree days to the accumulated degree days at 50 percent or 0 percent snow cover. If the snow cover is known, and the accumulated degree days are known, then the ACDD₅₀ and ACDD₀ can be recomputed through the relationships of snow cover and accumulated degree days.

Table 10
Summary of Equations Used in
Parabolic and Exponential Estimation Technique for South Fork

$$(ACDD)_{50} = A + B \text{ (Volume predicted on April 1)}^{1/}$$

$$(SC_{100-50}) = C + D \left[\frac{ACDD}{ACDD_{50}} \right] + E \left[\frac{ACDD}{ACDD_{50}} \right]^2$$

$$ACDD_0 = F + G \text{ (Volume predicted on May 1)}^{1/}$$

$$S_{50-0} = H \exp \left[\frac{K}{ACDD_0 - ACDD_{50}} \right]$$

where: ACDD = Accumulated degree days from April 1

ACDD₅₀ = Accumulated degree days to 50% snow cover from April 1

ACDD₀ = Accumulated degree days to 0% snow cover from April 1

S = Snow cover as a ratio of zone area.

(ACDD) ₅₀		S > 50%					(ACDD) ₀					S < 50%				
Zone	A	B	r ²	C ^{2/}	D	E	r ²	F	G	r ²	H ^{2/}	K	r ²			
A	-124.36	1.911	0.719	0.9868	-0.3296	-0.1493	0.942	85.20	2.626	0.583	0.5931	-3.730	0.947			
B	19.50	0.7061	0.277	0.9550	-0.2065	-0.2140	0.838	280.6	1.668	0.478	0.4795	-3.692	0.958			
C	-0.712	1.675	0.795	0.9817	-0.3865	-0.0670	0.925	162.4	3.140	0.794	0.5442	-3.741	0.959			

1/ Developed using historic data of actual April 1 - September 30 streamflow volumes.

2/ These values are based on a least-squares approach. To exactly satisfy boundary conditions, C values should be 1.0000, H values should be 0.5000, and the sum of C+D+E should also equal 0.5000.

Table 11
Summary of Equations Used in
Parabolic and Exponential Estimation Technique for Rio Grande

$$(ACDD_{50}) = A + B \text{ (Volume predicted on April 1)}^{1/}$$

$$(SC_{100-50}) = C + D \left[\frac{ACDD}{ACDD_{50}} + E \right] \left[\frac{ACDD}{ACDD_{50}} \right]^2$$

$$ACDD_0 = F + G \text{ (Volume predicted on May 1)}^{1/}$$

$$S_{50-0} = H \exp \left[K \left[\frac{ACDD - ACDD_{50}}{ACDD_0 - ACDD_{50}} \right] \right]$$

where: ACDD = Accumulated degree days from April 1
ACDD₅₀ = Accumulated degree days to 50% snow cover from April 1
ACDD₀ = Accumulated degree days to 0% snow cover from April 1
S = Snow cover as a ratio of zone area.

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(ACDD) ₅₀		S > 50%					(ACDD) ₀					S < 50%		
Zone	A	B	r ²	C ^{2/}	D	E	r ²	F	G	r ²	H ^{2/}	K	r ²	
A	-133.03	0.376	0.749	0.9670	-0.2352	-0.1935	0.889	-22.89	0.697	0.894	0.7070	-5.909	0.909	
B	-27.55	0.267	0.848	0.9822	-0.1812	-0.2668	0.837	190.61	0.363	0.395	0.6816	-6.070	0.948	
C	27.82	0.177	0.500	0.9777	-0.2883	-0.1602	0.811	227.4	0.699	0.596	0.7786	-5.669	0.853	

1/ Developed using historic data of actual April 1 - September 30 streamflow volumes.

2/ These values are based on a least-squares approach. To exactly satisfy boundary conditions, C values should be 1.000, H values should be 0.5000, and the sum of C+D+E should also equal 0.5000.

OPERATION OF MODEL IN THE PREDICTIVE MODE FOR 1980

To adequately assess the techniques for predicting snow-cover depletion curves, the predictive mode model was run for an actual case study on two watersheds. The watersheds selected were the South Fork of the Rio Grande at South Fork and the Rio Grande River near Del Norte. These watersheds were simulated in the predictive mode for the 1980 snowmelt runoff season.

The simulations used two techniques for estimation of the snow-cover depletion curves. The first technique utilized the subjective approach using a family of snow-cover depletion type curves for each zone (Rango & Martinec 1982). The second technique was to utilize the parabolic and exponential estimation technique to predict the snow-cover depletion curves as presented previously. In both cases simplifying assumptions were made in order to accurately assess the predictions made by the two techniques. The first simplification was to use the actual temperature and precipitation data for each zone. The second simplification was to assume that satellite imagery would be immediately available to update the predictions of snow cover.

The predictions of snow cover were updated at the dates of actual satellite imagery. For the case of the subjective technique, the type curve merely is adjusted for predictions of further snow-cover depletion data until the date of the next image. For the case of the estimation technique, the snow-cover estimates obtained from the parabolic and exponential regression equations were updated with data from actual imagery to revise the estimate of the accumulative degree days to 50 percent or 0 percent, respectively.

In order to minimize the effects of parameter estimation for this study, the 1980 actual snow-cover data were utilized for both watersheds in order to determine snowmelt rate factors and runoff coefficients (Figures 53 and 54). Results of these so-called "actual" simulations are shown in Table 12 and are plotted in Figures 55 and 56.

TYPE CURVE TECHNIQUE

This procedure involved selecting a "type" curve from among a family of modified depletion curves relating snow-covered area to accumulated degree days starting April 1. Fig. 57 is an example of such a family generated for zone A of the South Fork of Rio Grande. In an operational mode one would select the type curve based upon knowledge of the existing snowpack conditions and the projected seasonal volume runoff. For example, if a much above average snowpack existed on April 1 and seasonal streamflow forecasts indicate an abnormally high runoff, one would select a type curve which was developed from a similar magnitude year in the past. As satellite imagery becomes available during the course of the snowmelt period, adjustments can be made in the shape of the type curve using actual temperature data. This approach is simplistic in that it presupposes the same precipitation amounts in the current year as occurred in the year chosen as the appropriate type curve. Thus, any deviation in precipitation pattern compared to the year selected will be a source of error.

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To test the reliability of this method, predicted snow-cover depletion curves were constructed for 1980 for the South Fork Rio Grande and Rio Grande above Del Norte using actual temperature data and families of modified depletion curves based on the 1973-1979 period. As satellite imagery became available, the predicted snow-cover depletion curves were adjusted to conform to actual values. The predicted snow-cover depletion curves were then used as input data to the model. Figures 53 and 54 show the actual and predicted snow-cover depletion curves for the South Fork Rio Grande and Rio Grande, respectively.

Table 12 shows the results of the model runs using this technique. The computed hydrographs for South Fork and Rio Grande are shown on Figures 58 and 59, respectively.

Table 12
Results of Predictive Mode Runs for 1980

Run	South Fork of Rio Grande		Rio Grande above Del Norte	
	N-S R^2 <u>1/</u>	Seasonal difference (%)	N-S R^2 <u>1/</u>	Seasonal difference (%)
"Actual" simulation	0.9177	0.27	0.8978	0.44
Type curve technique	0.8344	14.69	0.5656	23.56
Parabolic and exponential technique without satellite update	0.7719	3.47	0.8674	1.97
Parabolic and exponential technique with satellite update	0.2359	24.87	0.4872	21.74

1/ Nash-Sutcliffe R^2

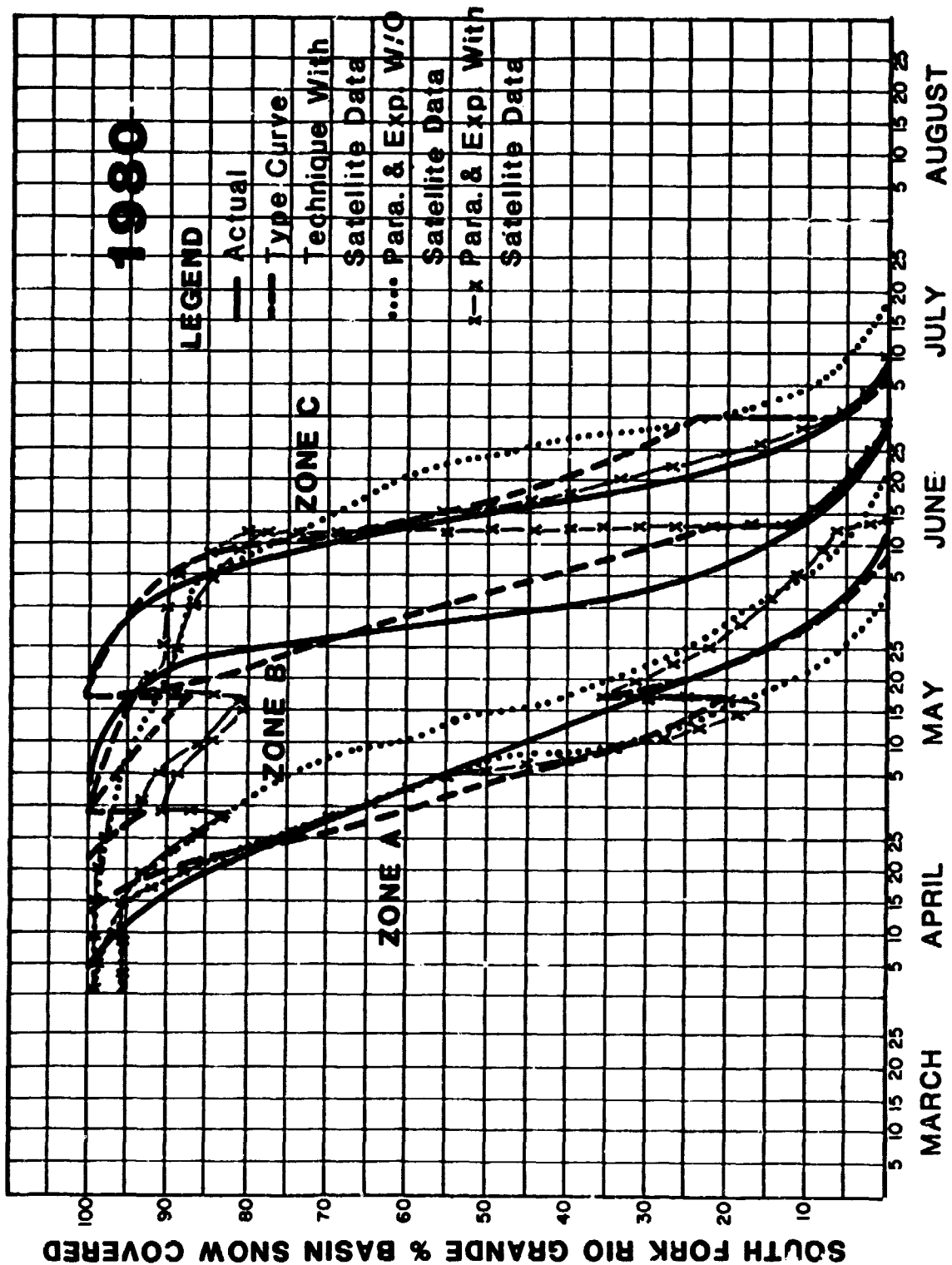


Fig. 53. Actual and Predicted Snow-Cover Depletion Curve,
South Fork Rio Grande - 1980.

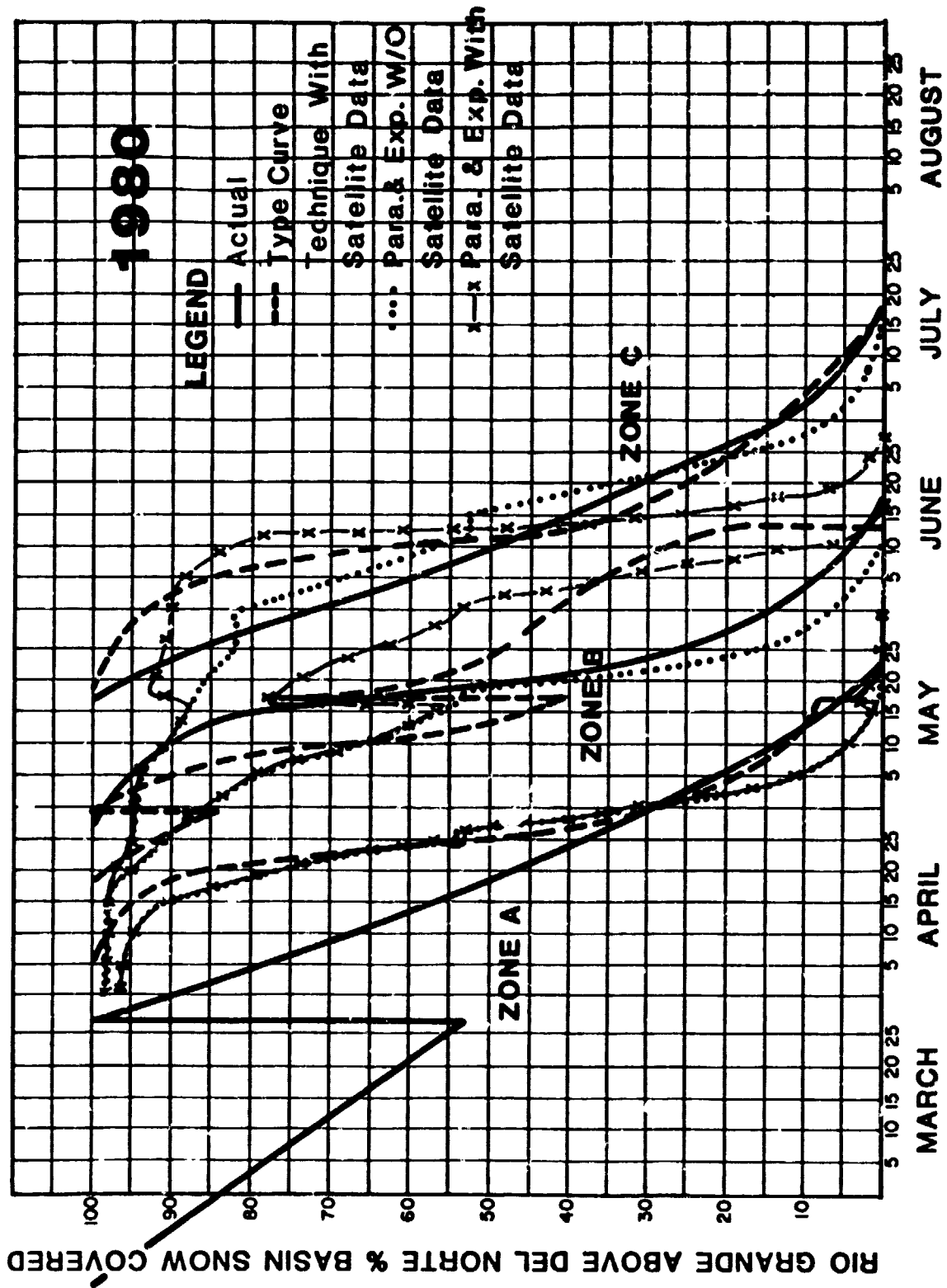


Fig. 54. Actual and Predicted Snow-Cover Depletion Curve,
Rio Grande above Del Norte - 1980.

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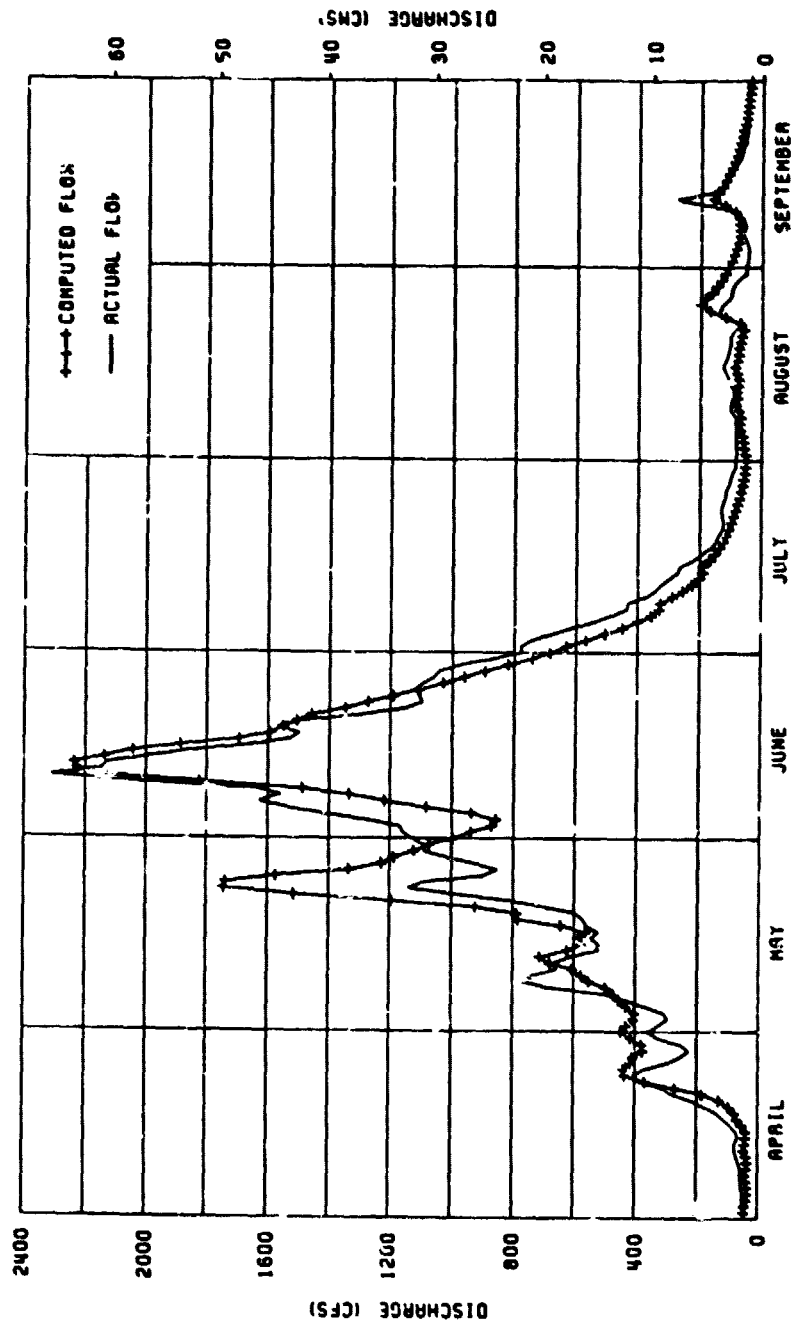


Fig. 55.
SOUTH FORK OF THE RIO GRANDE, AT SOUTH FORK, 1980.
ACTUAL SNOW COVER DATA.

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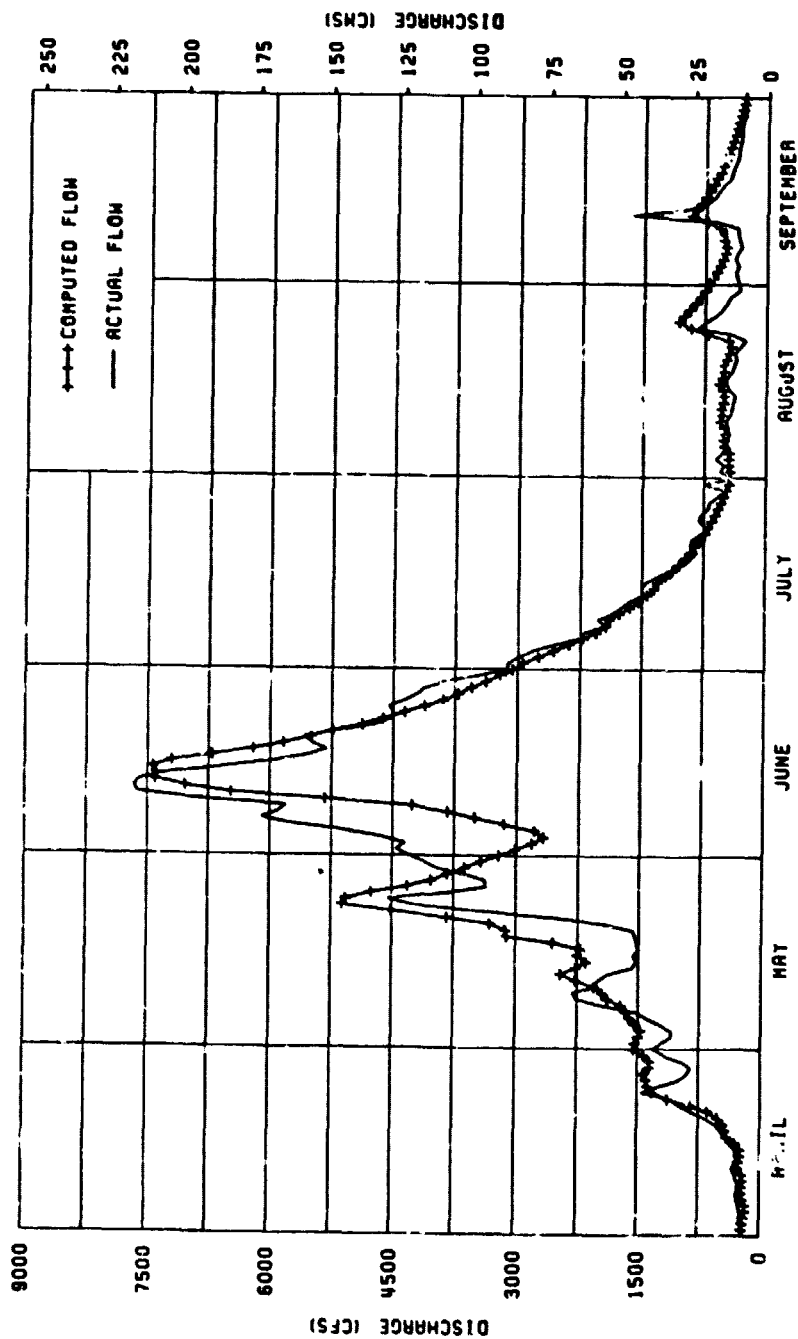
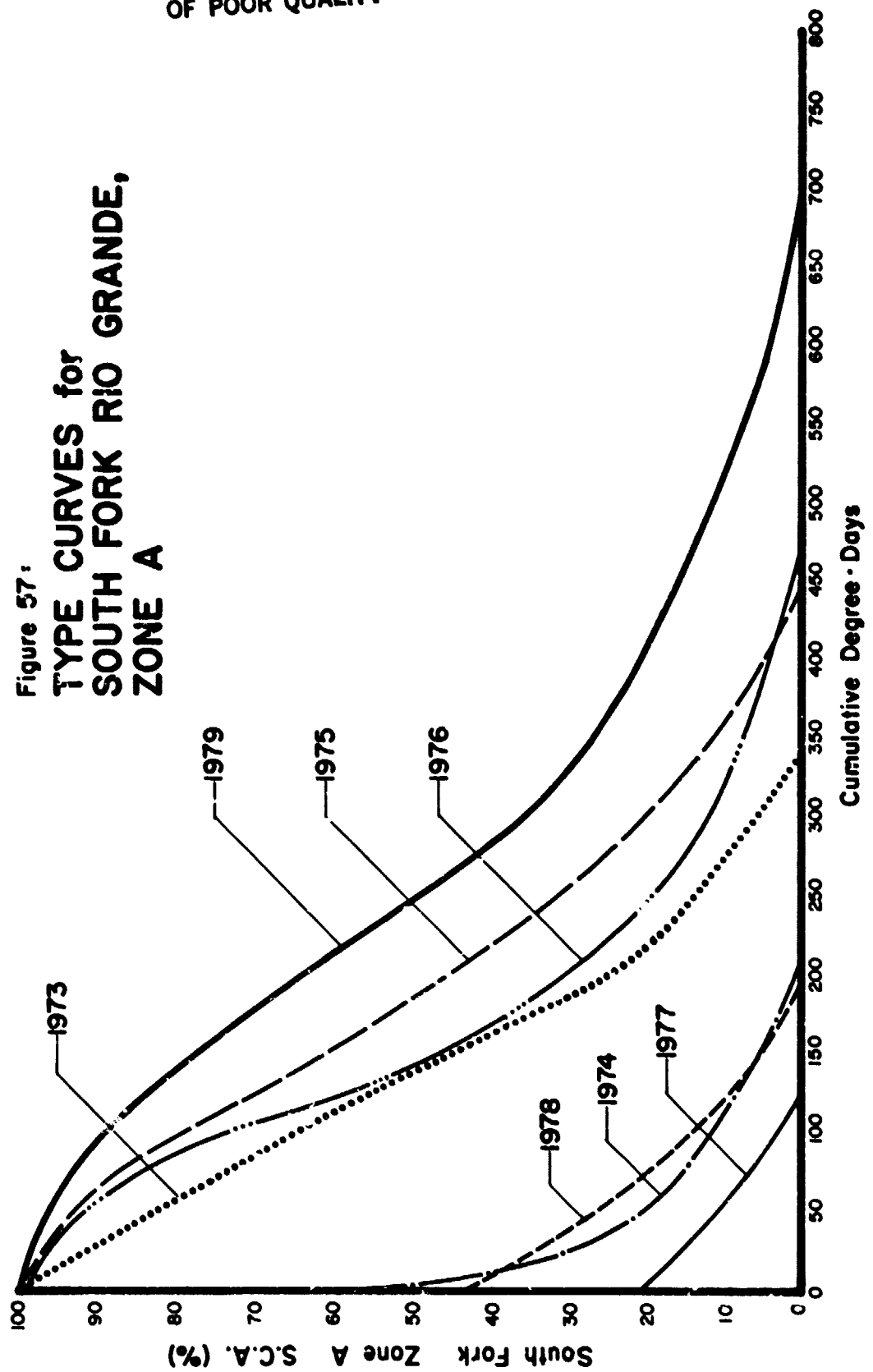


Fig. 56.
RIO GRANDE RIVER NEAR DEL NORTE, 1980.
ACTUAL SNOW COVER DAT.

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Figure 57:
TYPE CURVES for
SOUTH FORK RIO GRANDE,
ZONE A



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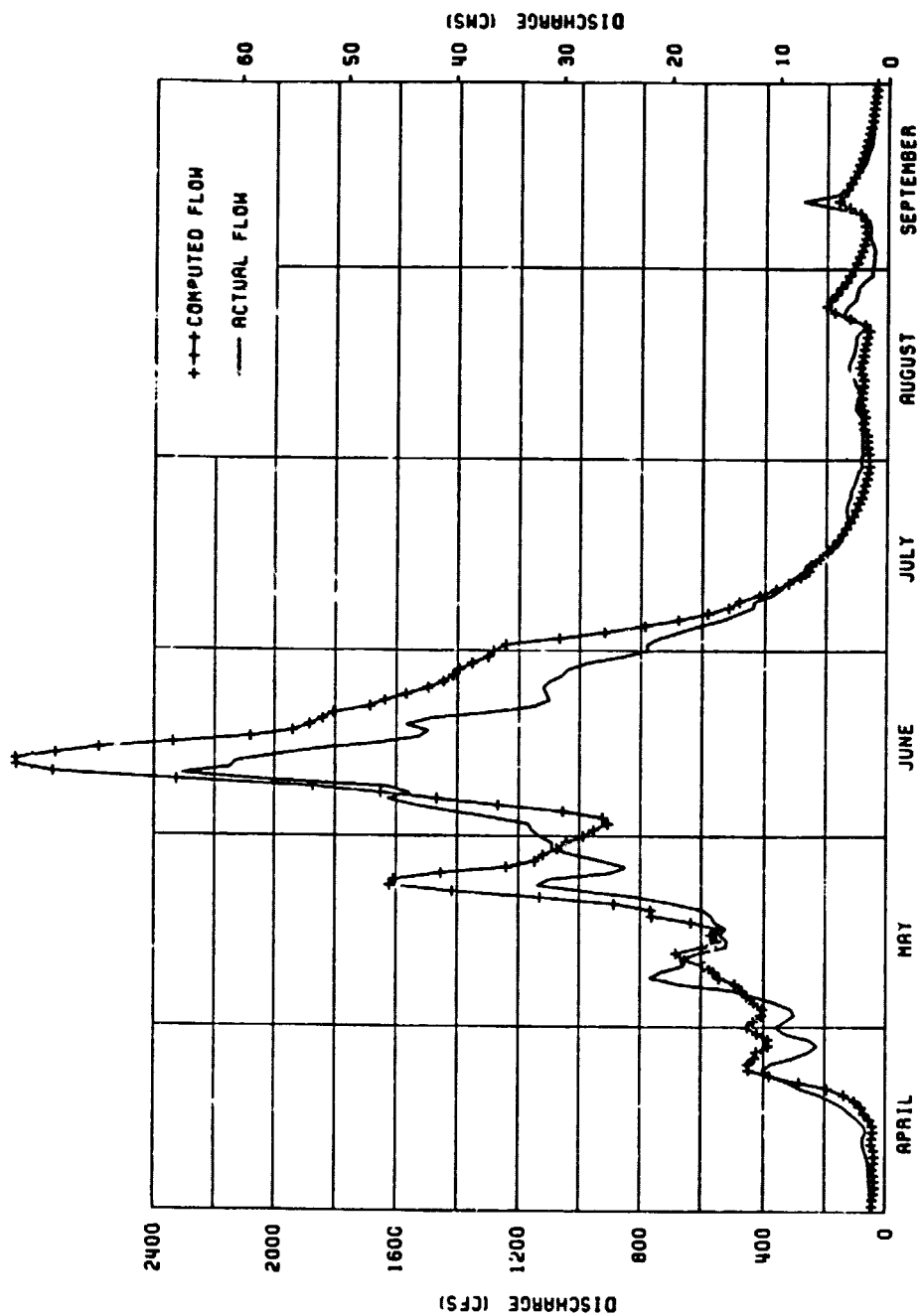


Fig. 58.
SOUTH FORK OF THE RIO GRANDE, AT SOUTH FORK, 1980.
TYPE CURVE METHOD USED FOR ESTIMATE OF SNOW COVER.

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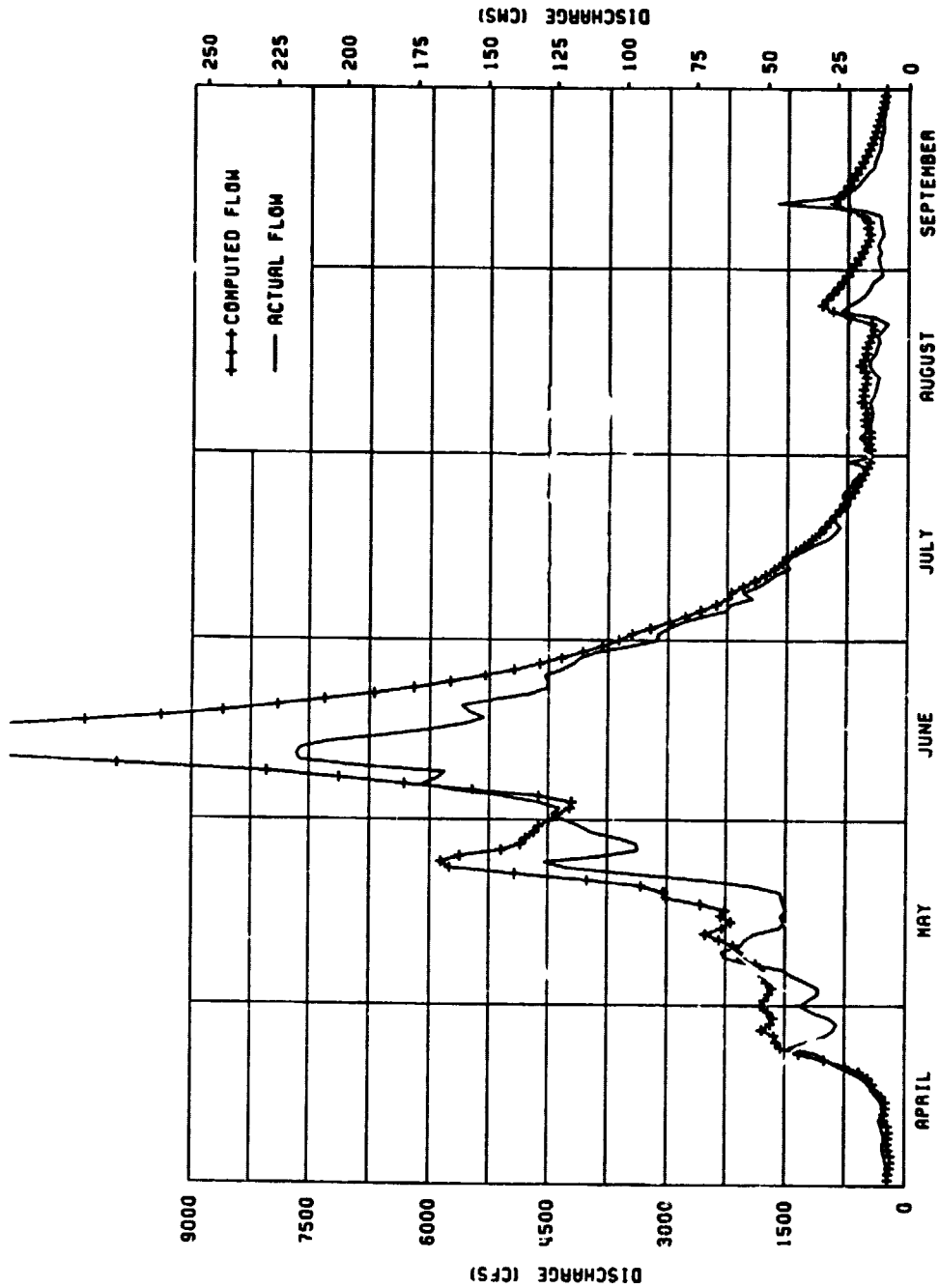


Fig. 59.
RIO GRANDE RIVER, NEAR DEL NORTE, 1980.
TYPE CURVE METHOD USED FOR ESTIMATE OF SNOW COVER.

PARABOLIC AND EXPONENTIAL TECHNIQUE

The parabolic and exponential technique discussed previously was used to predict the snow-cover depletion curves for both the South Fork and Rio Grande watersheds. The equations presented previously were utilized to calculate the snow-cover depletion based on April 1 and May 1 snow survey forecasts of watershed yields and using actual degree day information for each zone.

The parabolic and exponential equations were solved in reverse on dates where satellite imagery was available to update snow-cover information. The equations were solved for revised estimates of accumulated degree days to the 50 percent and 0 percent snow covers. Several assumptions were made in order to make the revisions to the curves. The first assumption was to adjust the parameters to allow for a 95 percent snow cover when satellite imagery showed there was 100 percent snow cover on a zone. If 100 percent was used in the equations, a value of infinity would be obtained for the $ACDD_{50}$ parameter.

The advantage of this technique over the type curve technique is the ability to allow the computer model to generate its own snow-cover data base upon input of actual measured data. This is desirable in the operational application of the model provided the algorithms developed produce satisfactory estimates of the streamflow hydrograph.

The results of the runs for this technique, the type curve technique, and the actual simulation technique (utilizing actual snow-cover data) are summarized in Table 12 for South Fork and Rio Grande, respectively. Plots of actual and estimated snow-cover depletion curves are shown in Figures 53 and 54.

Computer plots of each run summarized in the tables are shown in Figures 60 through 63.

Runs made utilizing the parabolic and exponential technique without satellite imagery revision provided better fits of the actual streamflow hydrographs for both watersheds than when the satellite imagery was used to revise the estimates. Further investigation of this approach will be necessary to improve upon the updating procedure.

Results of this analysis indicate that for the single test year, the type curve technique provided a better fit of the actual seasonal hydrographs. The parabolic and exponential method was superior when no satellite imagery was used but was less suitable when updated with actual satellite snow-cover data. This indicates that the algorithm used for revision of snow-cover depletion curves for the parabolic and exponential technique must be revised to better update the estimated curves with actual satellite imagery.

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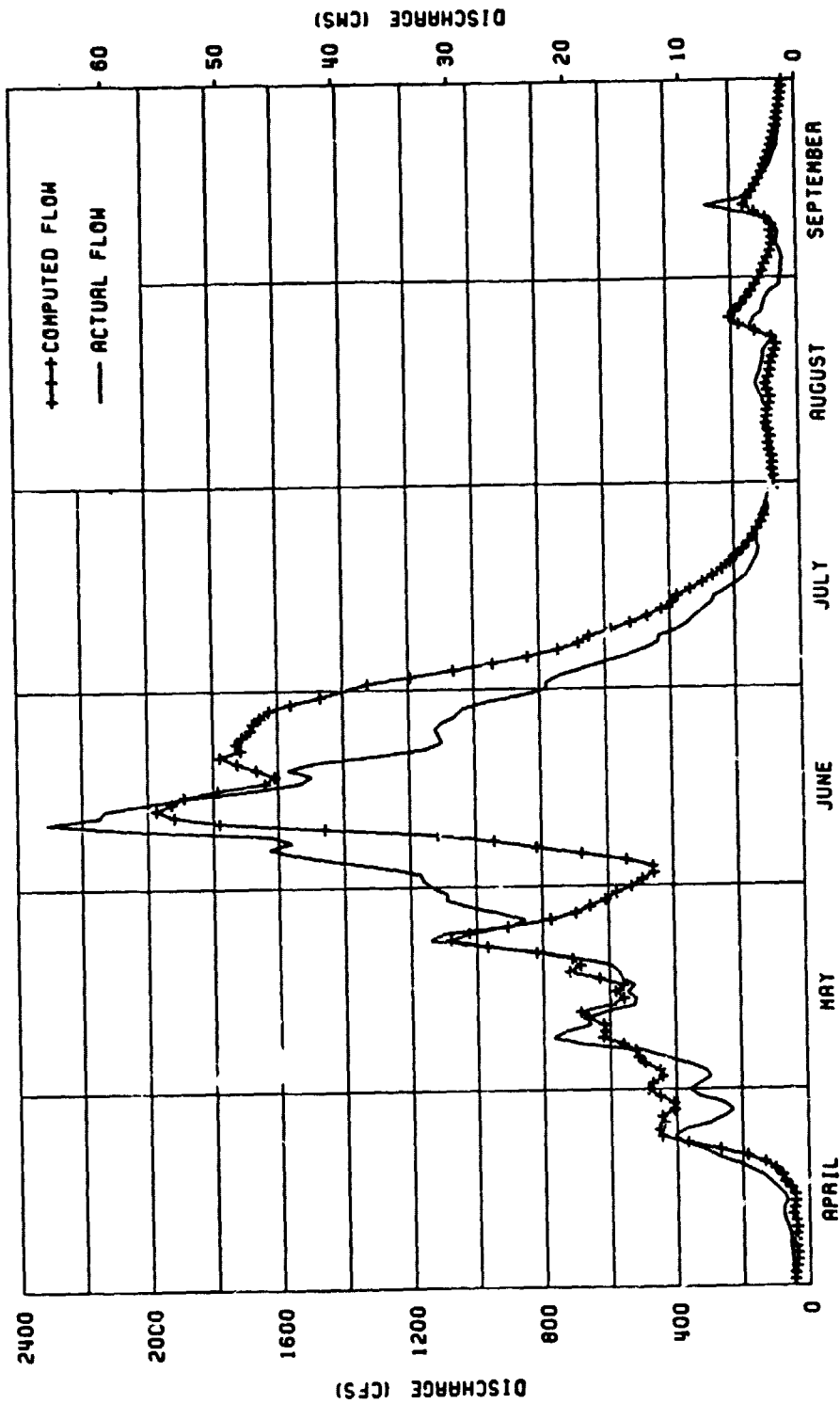


Fig. 60.
SOUTH FORK OF THE RIO GRANDE RIVER, AT SOUTH FORK, 1980.
PARBOLIC AND EXPONENTIAL ESTIMATE OF SNOW COVER.

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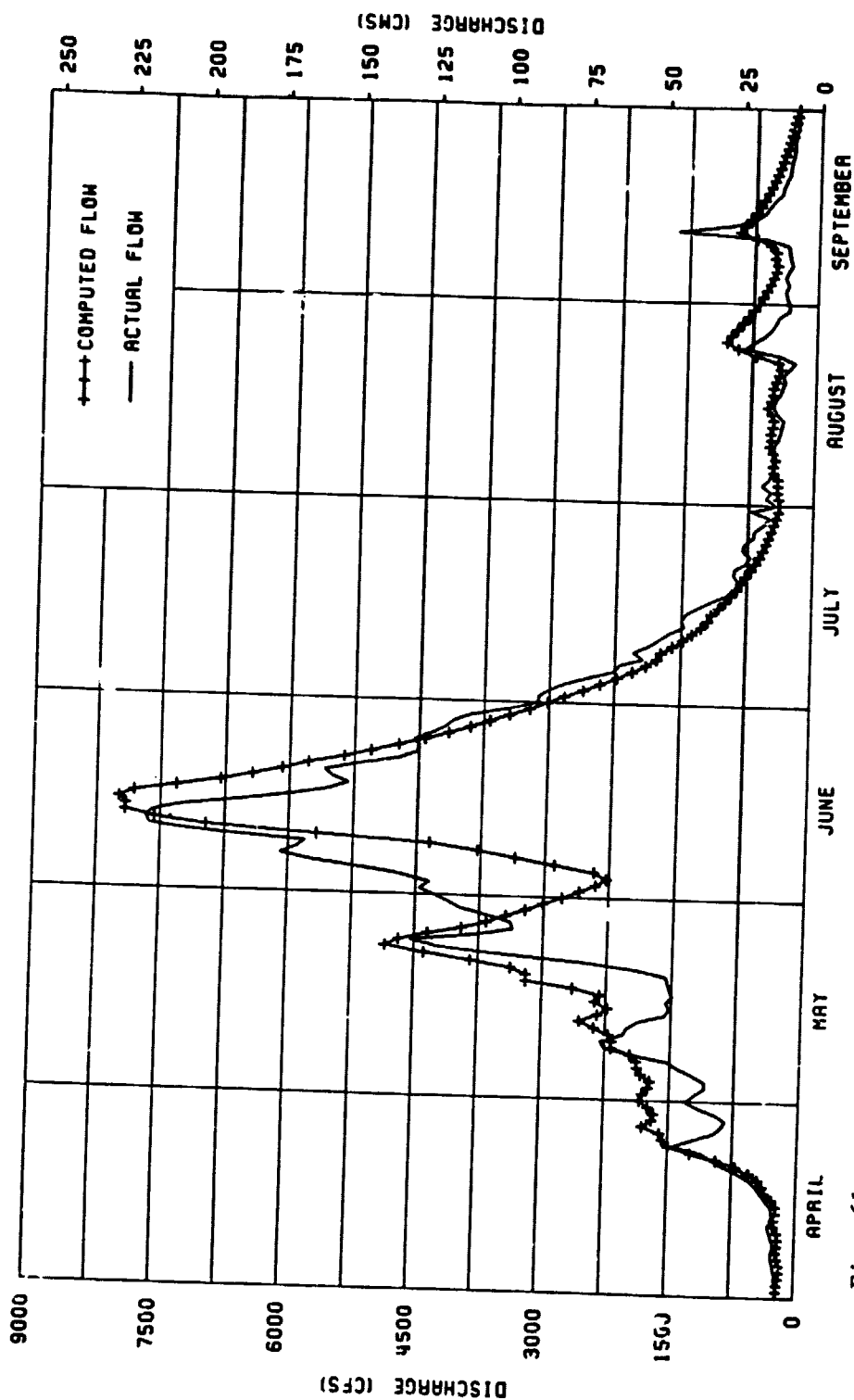


Fig. 61.
RIO GRANDE RIVER NEAR DEL NORTE, COLORADO, 1980.
PARABOLIC AND EXPONENTIAL ESTIMATE OF SNOW COVER.

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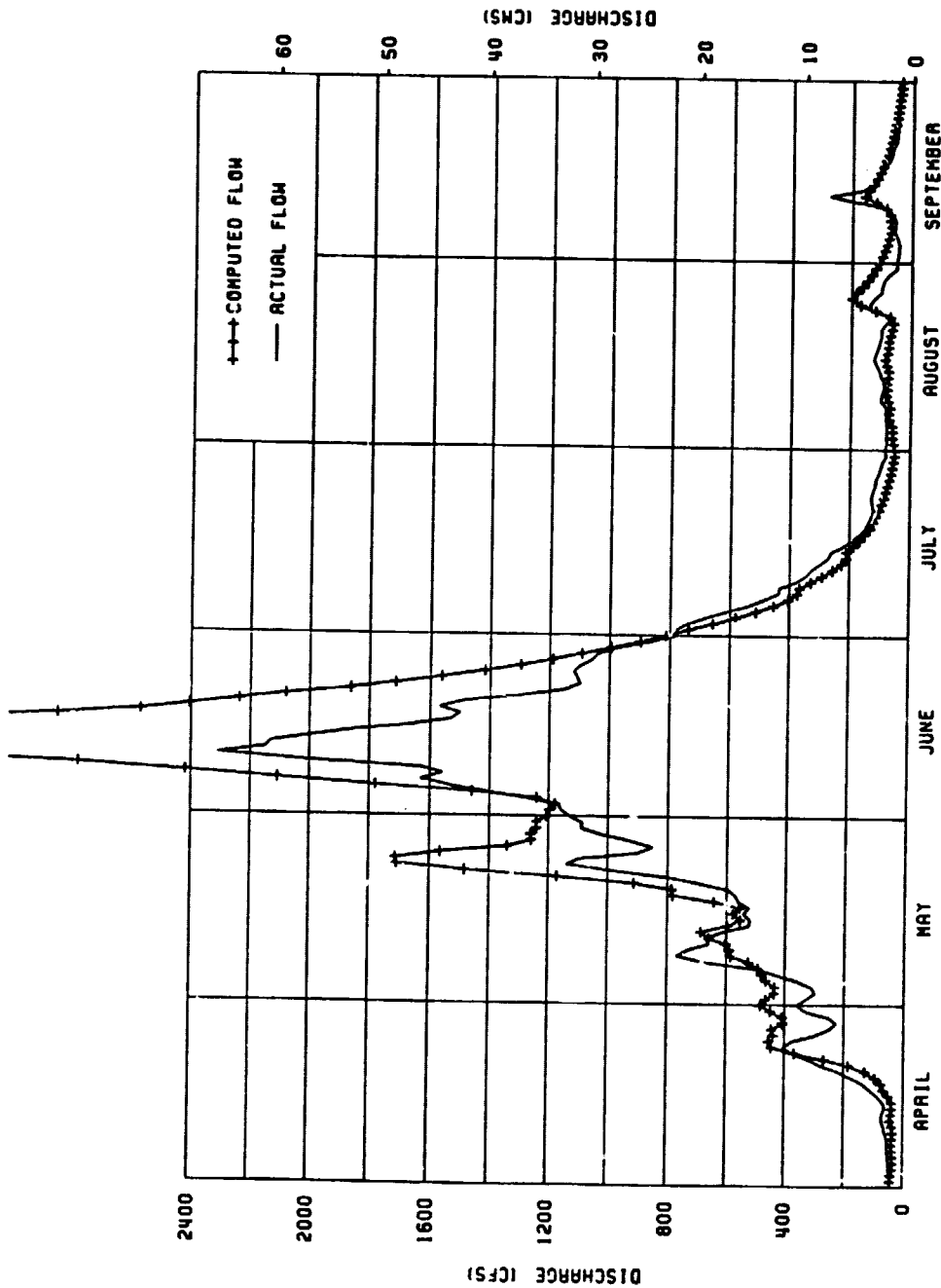


Fig. 62.

SOUTH FORK OF THE RIO GRANDE, AT SOUTH FORK, 1980.

PAR. AND EXP. WITH SAT. UPDATE ESTIMATE OF SNOW COVER.

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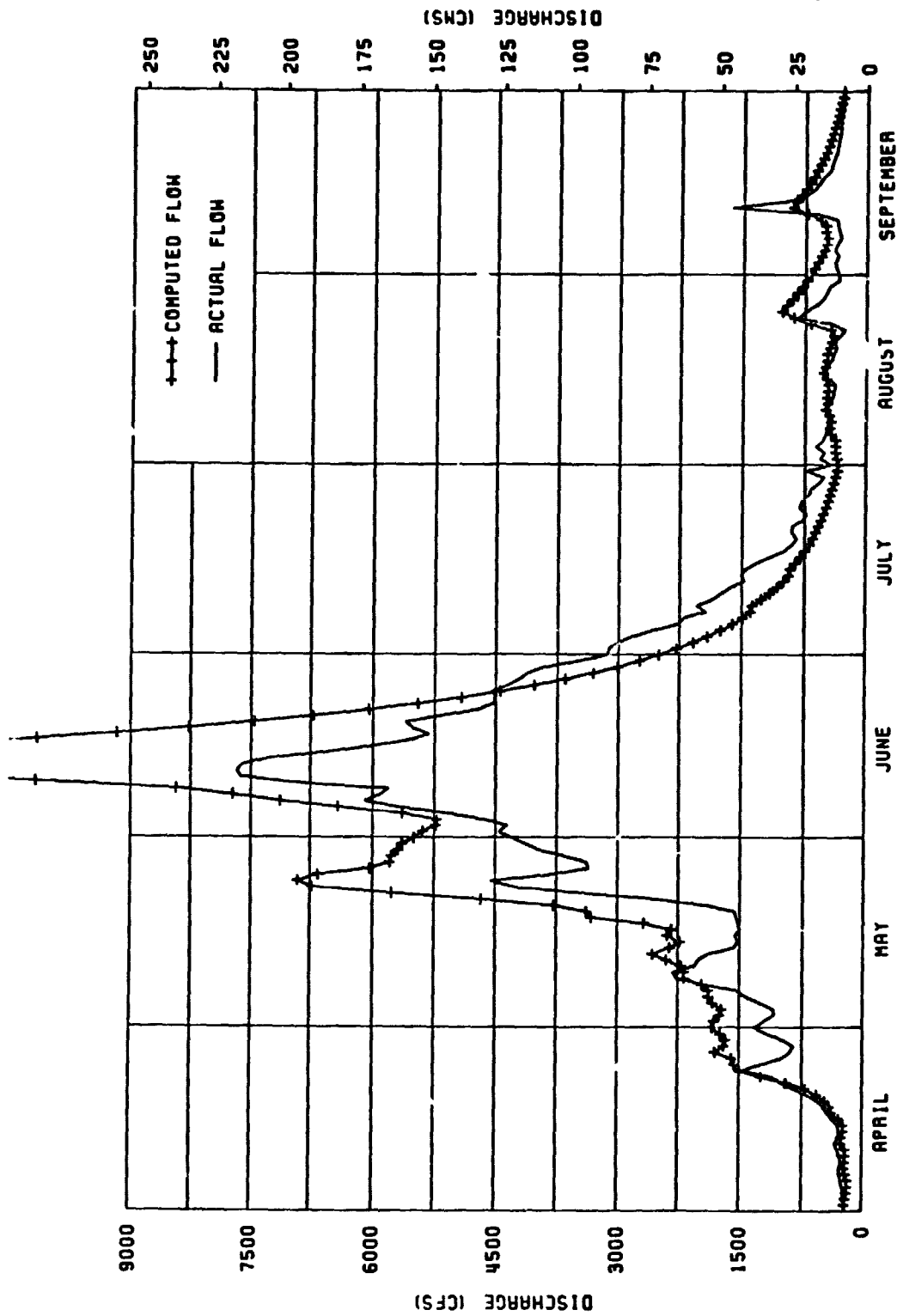


Fig. 63.
RIO GRANDE RIVER NEAR DEL NORTE, COLORADO, 1980.
PAR. AND EXP. WITH SATELLITE UPDATE ESTIMATE OF SNOW COVER.

SUMMARY

The Martinec-Rango snowmelt runoff model was applied to two watersheds in the Rio Grande basin, Colorado. The first watershed was the South Fork Rio Grande, a medium size drainage encompassing 216 mi² without major reservoirs or diversions. The second watershed was the Rio Grande above Del Norte, a large drainage encompassing 1,320 mi² and containing three major reservoirs. The model was successfully applied to both watersheds when run in a simulation mode for the period 1973-79. This period included both high and low runoff seasons and was a good test interval.

The model performed better on the South Fork than on the Rio Grande main stem as expected for two reasons: (1) the streamflow records on the Rio Grande main stem were adjusted for upstream reservoir regulation which induced an added source of error, and (2) the climatic data stations used for both watersheds were wholly in, or in closest proximity to, the South Fork drainage. It is believed that had additional climatic data been available for the upper reaches of the Rio Grande watershed, the simulation results on both watersheds would have been similar. The average variance accounted for by the model in the 1973-79 period was 86.2 percent for the Rio Grande watershed and 89.0 percent for the South Fork. These results demonstrate the inherent flexibility in the model for application to watersheds of widely disparate size. This characteristic is highly desirable because it enhances the model's capacity for universal application.

A second aspect of the study focused on adapting the model to run in a forecast mode. Central to this effort was the need to develop a technique to forecast the shape of the snow-cover depletion curves between satellite passes or in the absence of snow-cover information for an extended period. Four separate approaches were investigated. They include simple linear estimation, multiple regression, parabolic-exponential, and type curve. Preliminary analysis indicated only two of the four approaches considered were worthwhile candidates for a trial application in an operational context. Both the parabolic-exponential and type curve methods were run on the South Fork and Rio Grande watersheds for the 1980 runoff season using satellite snow-cover updates when available.

The results of the trial were disappointing. Neither method provided an acceptable fit for operational forecasts. This result may be partially attributable to a large amount of estimated climatic data for one of two primary base stations during the 1980 season. However, it is evident from the analysis that none of the four techniques in their present form are entirely satisfactory for predicting snow-cover depletion operationally. Further investigations are recommended before adoption of any standardized snow-cover prediction technique.

Preparatory to using the model in a forecast mode a routine for updating with observed streamflow is essential. Although no effort was made in this study to include this provision it would be a relatively simple task to accomplish and would increase the model's utility.

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APPENDIX A

Computer Model Listing

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0001

PROGRAM SNOMEL

C.....
 C.....
 C..... THIS PROGRAM PREDICTS DAILY STREAMFLOW FROM TEMPERATURE
 C..... AND SNOWCOVER DATA FOR A GIVEN WATERSHED AREA
 C.....
 C..... THE WATERSHED SHOULD BE DIVIDED INTO ELEVATION
 C..... ZONES. THIS VERSION CAN ACCEPT UP TO FIVE ZONES
 C.....
 C..... THE PROGRAM SIMULATES THE SIX MONTH PERIOD FROM
 C..... APRIL 1 THROUGH SEPTEMBER 30. ALL INPUT DATA
 C..... IS REQUIRED FOR THIS PERIOD ONLY.
 C.....
 C..... THE VARIABLES USED ARE:
 C..... T = TEMPERATURE IN DEGREE F/DAY ABOVE 32 DEG F.
 C..... DEVELOPED FOR EACH ELEVATION ZONE
 C..... P = THE PRECIPITATION IN INCHES/DAY FOR EACH ZONE
 C..... S = THE SNOW COVER AREA IN EACH ZONE IN % OF
 C..... THE TOTAL AREA OF THE ZONE
 C..... A = THE SNOWMELT COEFFICIENT IN INCHES/DAY PER DEGREE F
 C..... C = THE RUNOFF COEFFICIENT FOR EACH ZONE
 C..... AREA = THE AREA OF EACH ZONE IN SQ. MILES
 C..... STRFLO = THE COMPUTED DAILY STREAM FLOW
 C..... ACTFLO = THE ACTUAL STREAM FLOW MEASURED
 C..... YEAR = THE YEAR BEING MODELED
 C..... NZ = THE NUMBER OF ELEVATION ZONES
 C.....
 C..... DATA REQUIREMENTS ARE:
 C..... THE DAILY TEMPERATURE IN EACH ZONE IN DEGREE DAYS
 C..... THE DAILY PRECIPITATION DATA FOR EACH ZONE
 C..... THE DAILY SNOW COVER DATA FOR EACH ZONE
 C..... THE SNOWMELT AND RUNOFF COEFFICIENTS FOR
 C..... 15 DAY INCREMENTS BEGINNING APRIL 1
 C..... NUMBER OF ZONES AND THE AREA OF EACH ZONE
 C..... RECESSION COEFFICIENTS FOR THE GAGING STATION
 C.....
 C..... THIS MODEL WAS DEVELOPED BASED ON WORK BY RANGO AND MARTINEC
 C..... DEVELOPED MARCH 1980 BY RESOURCE CONSULTANTS INC.
 C..... VERSION 1.4 - REVISIONS OF OCTOBER 1981
 C.....
 C.....

0002

DIMENSION T(5,183),S(5,183),P(5,183),A(5,183),C(5,183),AREA(5)

0003

DIMENSION RUNOFF(5,183),STRFLO(183),ACTFLO(183),PR(5,183)

0004

DIMENSION NDAY(6),NAME(20),DATE(3)

0005

DIMENSION MO(12,3)

0006

DOUBLE PRECISION RECESS,PRUNOF,RUNOFF,QN,X,Y,SUMRO

0007

INTEGER*4 MO,YEAR,NAME,DATE,PR

0008

DATA MO(1,1),MO(1,2),MO(1,3)/4H JA,4HNUAR,4HY /

0009

DATA MO(2,1),MO(2,2),MO(2,3)/4H FE,4HBRUA,4HRY /

0010

DATA MO(3,1),MO(3,2),MO(3,3)/4H MA,4HARCH,4H /

0011

DATA MO(4,1),MO(4,2),MO(4,3)/4H AP,4HAPRIL,4H /

0012

DATA MO(5,1),MO(5,2),MO(5,3)/4H MA,4HY,4H /

0013

DATA MO(6,1),MO(6,2),MO(6,3)/4H JU,4HJUNE,4H /

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0014      DATA MO(7,1),MO(7,2),MO(7,3)/4H  JU,4HLY  ,4H  /
0015      DATA MO(8,1),MO(8,2),MO(8,3)/4H  AU,4HGUST,4H  /
0016      DATA MO(9,1),MO(9,2),MO(9,3)/4H  SE,4HPTEN,4HBER /
0017      DATA MO(10,1),MO(10,2),MO(10,3)/4H  O,4HCTOB,4HER /
0018      DATA MO(11,1),MO(11,2),MO(11,3)/4H  NO,4HVENB,4HER /
0019      DATA MO(12,1),MO(12,2),MO(12,3)/4H  DE,4HCEMB,4HER /
0020      DATA NDAY/30,31,30,31,31,30/

C.....
C.....      READ IN THE WATERSHED PARAMETERS
C.....      CARD 1:
C.....          NAME OF WATERSHED (NAME) 20A4 COLUMNS 1-80
C.....      CARD 2:
C.....          NUMBER OF ZONES (NZ)          12 COLUMNS 1-2
C.....          AREA OF EACH ZONE (AREA) 5F10.3 COLS 3-52
C.....      CARD GROUP 3:
C.....          SNOWMELT COEF. (A)          12F6.4 COLUMNS 1-72
C.....          ONE CARD FOR EACH ZONE (2 VALUES PER MONTH)
C.....      CARD GROUP 4:
C.....          RUNOFF COEF. (C)          12F6.4 COLUMNS 1-72
C.....          ONE CARD FOR EACH ZONE (2 VALUES PER MONTH)
C.....      CARD GROUP 5:
C.....          PREC. RUNOFF METHOD (PR) 6I1 COLUMNS 1-12
C.....          PR=0: PREC. RUNOFF IS COMPUTED FROM
C.....              NON-SNOWCOVERED AREAS ONLY
C.....          PR=1: PREC. RUNOFF IS COMPUTED FROM
C.....              THE TOTAL ZONE AREA
C.....          ONE CARD FOR EACH ZONE (2 VALUES PER MONTH)
C.....      CARD 6:
C.....          RECESSION COEF. (X,Y) 2F10.5 COLUMNS 1-20
C.....          DAILY RUNOFF REACHING GAGE (DR = RA + RB(SNOWCOVER
C.....              2F10.5 COLUMNS 21-40?
C.....

0021      CALL ASSIGN(1,'WATSHE.DAT',10,'RDO')
0022      READ(1,101) NAME
0023      101 FORMAT(20A4)
0024      READ(1,102) NZ,AREA
0025      102 FORMAT(I2,5F10.2)
0026      DO 1 J=1,NZ
0027      1 READ(1,103) A(J,1),A(J,16),A(J,31),A(J,46),A(J,62),A(J,77),A(J,92)
0028      1,A(J,107),A(J,123),A(J,138),A(J,154),A(J,169)
0029      DO 5 J=1,NZ
0029      READ(1,103) C(J,1),C(J,16),C(J,31),C(J,46),C(J,62),C(J,77),C(J,92)
0030      1,C(J,107),C(J,123),C(J,138),C(J,154),C(J,169)
0030      5 CONTINUE
0031      DO 40 J=1,NZ
0032      READ(1,116) PR(J,1),PR(J,16),PR(J,31),PR(J,46),PR(J,62),PR(J,77)
0033      1,PR(J,92),PR(J,107),PR(J,123),PR(J,138),PR(J,154),PR(J,169)
0033      116 FORMAT(12I1)
0034      103 FORMAT(12F6.4)
0035      N=0
0036      DO 2 I=1,6
0037      DO 3 K=N+1,N+15
0038      A(J,K)=A(J,N+1)
0039      C(J,K)=C(J,N+1)

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0040      PR(J,K)=PR(J,N+1)
0041      3 CONTINUE
0042      DO 4 K=N+16,N+NDAY(I)
0043      A(J,K)=A(J,N+16)
0044      C(J,K)=C(J,N+16)
0045      PR(J,K)=PR(J,N+16)
0046      4 CONTINUE
0047      2 N=N+NDAY(I)
0048      40 CONTINUE
0049      READ(1,107) X,Y,RA,RB
0050      107 FORMAT(4F10.5)
0051      CALL CLOSE(1)

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C.....
C.....      READ CLIMATOLOGICAL DATA
C.....      CARD GROUP 1:
C.....      YEAR BEING MODELED      14  COLS 1-4
C.....      CARD GROUP 2:
C.....      DAILY DEGREE DAY (T)  16(12F5.2) COLS 1-72
C.....      16 CARDS FOR EACH ZONE
C.....      CARD GROUP 3:
C.....      DAILY PRECIPITATION  16(12F5.2) COLS 1-72
C.....      16 CARDS FOR EACH ZONE
C.....      CARD GROUP 4:
C.....      DAILY SNOW COVER      16(12F5.4) COLS 1-72
C.....      16 CARDS FOR EACH ZONE
C.....      CARD GROUP 5:
C.....      STREAM FLOW MARCH 31      F5.0  COLS 1-10
C.....      CARD GROUP 6:
C.....      MEASURED STREAMFLOW  16(12F5.0) COLS 1-72
C.....

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```

0052      CALL ASSIGN(2,'CLIMAT.DAT',10,'RDO')
0053      READ(2,110) YEAR
0054      110 FORMAT(I4)
0055      DO 6 J=1,NZ
0056      6 READ(2,104) (T(J,K),K=1,183)
0057      104 FORMAT(12F5.2)
0058      DO 7 J=1,NZ
0059      7 READ(2,104) (P(J,K),K=1,183)
0060      DO 8 J=1,NZ
0061      8 READ(2,105) (S(J,K),K=1,183)
0062      105 FORMAT(12F5.4)
0063      READ(2,106) QN
0064      READ(2,106) ACTFLO
0065      106 FORMAT(12F5.0)
0066      CALL IDATE(1,DATE(1),DATE(2),DATE(3))

```

```

C.....
C.....      WRITE ALL INPUT DATA
C.....

```

```

0067      DO 119 J=1,NZ
0068      WRITE(6,121) NAME,YEAR,DATE,J,((MO(KK,K),K=1,3),KK=4,9)
0069      121 FORMAT(1H1,/,5X,'RANGO/MARTINEC MODEL VERSION RCI-1.4 RUN FOR',
120A4,/,20X,'THE RUN IS FOR THE YEAR OF ',I4,
1'      RUN OF MODEL MADE ',I2, '/',I2, '/',I2,
2//,30X,'DAILY CLIMATOLOGICAL DATA FOR ZONE',I2,

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3//,1X,'DAY ',6(4X,3A4,4X),
4/,4X,6(' DEGREE PREC. SNOW '),
5/,4X,6(' DAYS IN. COVER '),/)
0070 DO 118 K=1,30
0071 K2=K+30
0072 K3=K+61
0073 K4=K+91
0074 K5=K+122
0075 K6=K+153
0076 WRITE(6,122)K,T(J,K),P(J,K),S(J,K),T(J,K2),P(J,K2),S(J,K2)
      1,T(J,K3),P(J,K3),S(J,K3)
      1,T(J,K4),P(J,K4),S(J,K4),T(J,K5),P(J,K5),S(J,K5)
      1,T(J,K6),P(J,K6),S(J,K6)
0077 122 FORMAT(1X,I2,2X,6(1X,F5.2,1X,F5.2,1X,F5.3,2X))
0078 118 CONTINUE
0079 WRITE(6,126) T(J,61),P(J,61),S(J,61),T(J,122),P(J,122),S(J,122)
      1,T(J,153),P(J,153),S(J,153)
0080 126 FORMAT(1X,'31',22X,1X,F5.2,1X,F5.2,1X,F5.3,2X,20X
      1,2(1X,F5.2,1X,F5.2,1X,F5.3,2X))
0081 119 CONTINUE
0082 WRITE(6,125) NAME, YEAR, DATE, ((MO(KK,K),K=1,3),KK=4,9),NDAY
0083 125 FORMAT(1H1,/,5X,'RANGO/MARTINEC MODEL VERSION RCI-1.4 RUN FOR',
      120A4,/,20X,'THE RUN IS FOR THE YEAR OF ',I4,
      1' RUN OF MODEL MADE ',I2,/',I2,/',I2,
      2//,30X,'WATERSHED MELT AND RUNOFF COEFFICIENTS',
      3//,20X,6(3X,3A4,3X),
      4/,20X,6(' 1 - 15 16 - ',I2,1X))
0084 DO 31 J=1,NZ
0085 WRITE(6,120) J
0086 120 FORMAT(1H0,3X,'DATA FOR ZONE ',I1,':')
0087 WRITE(6,123)A(J,1),A(J,16),A(J,31),A(J,46),A(J,62),A(J,77),A(J,92)
      1,A(J,107),A(J,123),A(J,138),A(J,154),A(J,169)
0088 123 FORMAT(6X,'ME! T FACTORS',2X,6(3X,F5.3,3X,F5.3,2X))
0089 WRITE(6,124)C(J,1),C(J,16),C(J,31),C(J,46),C(J,62),C(J,77),C(J,92)
      1,C(J,107),C(J,123),C(J,138),C(J,154),C(J,169)
0090 124 FORMAT(6X,'RUNOFF COEF.',2X,6(3X,F5.3,3X,F5.3,2X))
0091 WRITE(6,127)PR(J,1),PR(J,16),PR(J,31),PR(J,46),PR(J,62),PR(J,77)
      1,PR(J,92),PR(J,107),PR(J,123),PR(J,138),PR(J,154),PR(J,169)
0092 127 FORMAT(6X,'PREC. METHOD',2X,6(4X,I1,7X,I1,5X))
0093 31 CONTINUE
0094 WRITE(6,128)
0095 128 FORMAT(1H0,////,6X,'NOTE: PREC. METHOD:',
      1/,20X,'0 = PREC. RUNOFF COMPUTED FOR NON-SNOWCOVERED AREAS ONLY',
      1/,20X,'1 = PREC. RUNOFF COMPUTED FOR ALL AREAS')
C..... ALL DATA HAS BEEN ENTERED
C.....
C..... BEGIN COMPUTATIONS
C.....
C..... DETERMINE IF PRECIPITATION IS RAIN OR SNOW
C..... AND IF RUNOFF OCCURS FROM PRECIPITATION OR
C..... IS ACCUMULATED AS SNOW
C.....
0096 DO 10 J=1,NZ
0097 SNOW = 0.0

```

```
0098      DO 11 K=1,183
0099      SC0=0.0
0100      SC1=0.0
0101      IF(PR(J,K).EQ.0) SC0=S(J,K)
0103      IF(PR(J,K).EQ.1) SC1=S(J,K)
0105      R = T(J,K)*A(J,K)
      C.....      CHECK FOR RAIN IN ZONE J
0106      IF(P(J,K).EQ.0.) GO TO 12
      C.....      CHECK FOR SNOW IN ZONE J
0108      IF(T(J,K).GT.2.0) GO TO 12
      C.....      CHECK IF SNOWCOVER IS GREATER THAN 90 PERCENT
0110      IF(S(J,K).GE.0.9) GO TO 14
      C.....      ACCUMULATE SNOW IN ZONE J
0112      SNOW = SNOW + P(J,K)
0113      14 P(J,K)=0.0
0114      GO TO 11
      C.....      IS THERE PRECIPITATION TO BE MELTED
0115      12 IF(SNOW.EQ.0.) GO TO 11
      C.....      CHECK TEMPERATURE AND CALCULATE SNOW TO BE MELTED
0117      IF(T(J,K).LE.0.) GO TO 11
0119      EP = R*(1.-SC1)
0120      IF(R.GT.SNOW) GO TO 13
0122      P(J,K)=P(J,K)+EP
0123      SNOW=SNOW-R
0124      GO TO 11
      C.....      CALCULATED RUNOFF IS GREATER THAN SNOW BEING MELTED
0125      13 P(J,K)=P(J,K)+(SNOW*(1.-SC1))
0126      SNOW=0.0
0127      11 P(J,K) = P(J,K)*(1.-SC0)
0128      10 CONTINUE
      C.....
      C.....      PRECIPITATION WHICH WILL RUNOFF HAS BEEN
      C.....      CALCULATED FOR EACH ZONE
      C.....
      C.....      BEGIN CALCULATION OF DAILY STREAM FLOWS
      C.....
0129      DO 15 K=1,183
0130      SUMRO =0.0
0131      SC = 0.0
0132      SA = 0.0
0133      DO 16 J=1,NZ
0134      SC = SC + S(J,K)*AREA(J)
0135      SA = SA + AREA(J)
0136      RUNOFF(J,K)=C(J,K)*AREA(J)*26.8889DO*(A(J,K)*T(J,K)*S(J,K)+P(J,K)
0137      16 SUMRO=SUMRO+RUNOFF(J,K)
0138      DR = RA + (RB*SC/SA)
0139      RECESS=X*(QN*Y)
0140      IF(K.EQ.1) PRUNOF=QN
0142      IF(K.EQ.1) DRP = DR
0144      STRFLO(K)=((1-DRP)*PRUNOF+DR*SUMRO)*(1.0-RECESS)+QN*RECESS
0145      PRUNOF=SUMRO
0146      QN=STRFLO(K)
0147      DRP = DR
0148      15 CONTINUE
```

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C..... WRITE COMPUTED RUNOFF FOR EACH ZONE
0149 DO 19 J=1,NZ
0150 WRITE(6,113) NAME, YEAR, DATE, J, ((MO(KK,K), K=1,3), KK=4,9)
0151 113 FORMAT(1H1, '//, 5X, 'RANGO/MARTINEC MODEL VERSION RCI-1.4 RUN FOR',
120A4, '//, 20X, 'THE RUN IS FOR THE YEAR OF ', I4,
1' RUN OF MODEL MADE ', I2, '/', I2, '/', I2,
2//, 30X, 'COMPUTED DAILY RUNOFF FOR ZONE', I2,
3//, 1X, 'DAY ', 6(4X, 3A4, 4X, ),
4/, 4X, 6(1X, 'COMPUTED RUNOFF ', 2X),
5/, 4X, 6(3X, 'CFS ', 4X, ),/)
0152 DO 18 K=1,30
0153 K2=K+30
0154 K3=K+61
0155 K4=K+91
0156 K5=K+122
0157 K6=K+153
0158 WRITE(6,114) K, RUNOFF(J,K), RUNOFF(J,K2), RUNOFF(J,K3),
1, RUNOFF(J,K4), RUNOFF(J,K5), RUNOFF(J,K6)
0159 114 FORMAT(1X, I2, 6(6X, F7.1, 7X))
0160 18 CONTINUE
0161 WRITE(6,115) RUNOFF(J,61), RUNOFF(J,122), RUNOFF(J,153)
0162 115 FORMAT(1X, '31', 20X, 6X, F7.1, 7X, 20X, 2(6X, F7.1, 7X))
0163 19 CONTINUE

C..... WRITE COMPUTED STREAMFLOWS
0164 WRITE(6,109) NAME, YEAR, DATE, ((MO(J,K), K=1,3), J=4,9)
0165 109 FORMAT(1H1, '//, 5X, 'RANGO/MARTINEC MODEL VERSION RCI-1.4 RUN FOR',
120A4, '//, 20X, 'THE RUN IS FOR THE YEAR OF ', I4,
1' RUN OF MODEL MADE ', I2, '/', I2, '/', I2,
2//, 5X, 6(3X, 'STREAMFLOW FOR' 3X),
3/, 1X, 'DAY ', 6(4X, 3A4, 4X, ),
4/, 4X, 6(1X, 'COMPUTED', 3X, 'ACTUAL' 2X),
5/, 4X, 6(3X, 'CFS', 7X, 'CFS', 4X, ),/)
0166 DO 17 K=1,30
0167 K2=K+30
0168 K3=K+61
0169 K4=K+91
0170 K5=K+122
0171 K6=K+153
0172 WRITE(6,112) K, STRFLO(K), ACTFLO(K), STRFLO(K2), ACTFLO(K2),
1STRFLO(K3), ACTFLO(K3), STRFLO(K4), ACTFLO(K4), STRFLO(K5), ACTFLO(K5),
2STRFLO(K6), ACTFLO(K6)
0173 112 FORMAT(1X, I2, 6(2X, F6.0, 4X, F6.0, 2X))
0174 17 CONTINUE
0175 WRITE(6,111) STRFLO(61), ACTFLO(61), STRFLO(122), ACTFLO(122),
1STRFLO(153), ACTFLO(153)
0176 111 FORMAT(1X, '31', 22X, F6.0, 4X, F6.0, 22X, 2(2X, F6.0, 4X, F6.0, 2X))

C..... CALCULATE NASH-SUTCLIFFE GOODNESS OF FIT
0177 G=0.0
0178 H=0.0
0179 DO 200 I=1,183
0180 G=G+ACTFLO(I)
0181 H=H+STRFLO(I)
0182 200 CONTINUE
0183 QMEAN=G/183.

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0184      E=0.0
0185      F=0.0
0186      DO 210 I=1,183
0187          E=E+(ACTFLO(I)-QMEAN)**2
0188          F=F+(ACTFLO(I)-STRFLO(I))**2
0189      210 CONTINUE
0190      XNSR2=(E-F)/E
0191      WRITE(6,215)NAME, YEAR, DATE, XNSR2
0192      215 FORMAT(1H1, '//, 5X, 'KANGO/MARTINEC MODEL VERSION FCI-1.4 RUN FOR',
        120A4, '//, 20X, 'SUMMARY OF THE MODEL RUN FOR THE YEAR OF ', I4,
        1'   RUN OF MODEL MADE ', I2, '//, I2, '//, I2, '//,
        125X, 'NASH-SUTCLIFFE GOODNESS OF FIT METHOD - NSR**2 = ', F10.4, '/')
C.....  CALCULATE SEASONAL DIFFERENCE
0193      FE=((H-G)/H)*100.0
0194      WRITE(6,220)G, H, FE
0195      220 FORMAT(25X'ACTUAL SEASON VOLUME = ', F12.3, ' CFS-DAYS', '//,
        *25X'COMPUTED SEASON VOLUME = ', F12.3, ' CFS-DAYS', '//,
        *25X'SEASONAL DIFFERENCE IN PERCENT = ', F10.2)
C.....  WRITE OUTPUT FILE FOR PLOTTING
0196      CALL ASSIGN(3, 'OUTPUT.DAT', 10, 'NEW')
0197      WRITE(3, 30) STRFLO
0198      30 FORMAT(12F6.0)
0199      WRITE(3, 30) ACTFLO
0200      STOP
0201      END

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Local Variables, .PSECT \$DATA, Size = 075274 (15710. words)

Name	Type	Offset	Name	Type	Offset	Name	Type	Offset
DR	R*4	075146	DRP	R*4	075152	E	R*4	075172
EP	R*4	075132	F	R*4	075176	G	R*4	075156
H	R*4	075162	I	I*2	075062	J	I*2	075056
K	I*2	075064	KK	I*2	075076	K2	I*2	075100
K3	I*2	075102	K4	I*2	075104	K5	I*2	075106
K6	I*2	075110	N	I*2	075060	NZ	I*2	075054
PE	R*4	075206	PRUNOF	R*8	075000	QMEAN	R*4	075166
QN	R*8	075010	R	R*4	075126	RA	R*4	075066
RR	R*4	075072	RECESS	R*8	074770	SA	R*4	075142
SC	R*4	075136	SC0	R*4	075116	SC1	R*4	075122
SNOW	R*4	075112	SUMRO	R*8	075040	X	R*8	075020
XNSR2	R*4	075202	Y	R*8	075030	YEAR	I*4	075050

Local and COMMON Arrays:

Name	Type	Section	Offset	-----Size-----	Dimensions
A	R*4 Vec	\$DATA	025344	007114 (1830.)	(5,183)
ACTFLO	R*4	\$DATA	063404	001334 (366.)	(183)
AREA	R*4	\$DATA	043574	000024 (10.)	(5)
C	R*4 Vec	\$DATA	034460	007114 (1830.)	(5,183)
DATE	I*4	\$DATA	074210	000014 (6.)	(3)
MO	I*4 Vec	\$DATA	074224	000220 (72.)	(12,3)
NAME	I*4	\$DATA	074070	000120 (40.)	(20)
NDAY	I*2	\$DATA	074054	000014 (6.)	(6)
P	R*4 Vec	\$DATA	016230	007114 (1830.)	(5,183)
PR	I*4 Vec	\$DATA	064740	007114 (1830.)	(5,183)
RUNOFF	R*8 Vec	\$DATA	043620	016230 (3660.)	(5,183)
S	R*4 Vec	\$DATA	007114	007114 (1830.)	(5,183)
STRFLO	R*4	\$DATA	062050	001334 (366.)	(183)
T	R*4 Vec	\$DATA	000000	007114 (1830.)	(5,183)

Subroutines, Functions, Statement and Processor-Defined Functions:

Name	Type	Name	Type	Name	Type	Name	Type	Name	Type
ASSIGN	R*4	CLOSE	R*4	IDATE	I*2				

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APPENDIX B

**Summary of Published Climatological Data
for National Weather Service Stations at:**

**Pagosa Springs
Wolf Creek 1E
Del Norte
Hermit 7ESE**

April - September, 1973-1980

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1973
FOR THE MONTH OF APRIL

DAY	FAGUSA SPRINGS			WOLF CREEK 1E			DEL NORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	45	12	0.00	33	4	0.00	46	17	0.00	33	4	0.00
2	42	26	0.03	27	13	0.21	38	23	0.37	27	13	0.10
3	43	17	0.00	27	7	0.00	45	16	0.00	27	7	0.00
4	44	11	0.00	27	0	0.00	44	10	0.00	27	0	0.00
5	50	8	0.00	30	3	0.00	54	12	0.00	30	3	0.00
6	56	16	0.00	39	12	0.00	57	24	0.00	39	12	0.00
7	59	25	0.02	38	15	0.00	48	16	0.23	38	15	0.20
8	39	7	0.05	41	-6	0.36	36	-4	0.10	41	-6	0.00
9	48	6	0.00	22	-2	0.00	49	10	0.00	22	-2	0.00
10	54	17	0.00	32	10	0.00	52	19	0.00	32	10	0.00
11	58	25	0.00	34	17	0.00	53	27	0.00	34	17	0.00
12	58	25	0.00	35	20	0.00	55	26	0.05	36	20	0.00
13	61	25	0.00	38	16	0.00	62	27	0.00	38	16	0.00
14	60	21	0.00	40	18	0.00	59	25	0.00	40	18	0.00
15	55	24	0.08	40	14	0.27	47	27	0.00	40	14	0.00
16	52	20	0.00	27	5	0.05	54	20	0.00	27	5	0.00
17	58	19	0.00	35	13	0.00	61	25	0.00	35	13	0.00
18	55	30	0.27	37	23	0.27	49	32	0.01	37	23	0.50
19	36	22	0.05	26	10	0.70	40	27	0.00	26	10	0.00
20	45	12	0.00	17	5	0.36	44	19	0.00	17	5	0.00
21	47	23	0.01	26	13	0.07	54	22	0.00	26	13	0.00
22	55	18	0.00	31	10	0.00	64	21	0.00	31	10	0.00
23	61	22	0.00	38	13	0.00	66	26	0.00	38	18	0.00
24	60	24	0.00	44	18	0.00	61	30	0.00	44	18	0.00
25	61	27	0.00	42	20	0.00	63	30	0.00	42	20	0.00
26	61	28	0.00	42	15	0.00	62	25	0.00	42	15	0.00
27	65	21	0.00	52	20	0.00	70	25	0.00	52	20	0.00
28	66	25	0.00	48	23	0.00	68	32	0.00	48	23	0.00
29	63	32	0.00	47	30	0.00	63	38	0.00	47	30	0.00
30	61	31	0.53	44	20	0.00	57	36	0.04	44	20	0.40
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	53.9	20.6	1.04	35.3	12.8	2.29	54.0	22.8	0.82	35.3	12.8	1.20

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A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1973
FOR THE MONTH OF MAY

DAY	PAGOSA SPRINGS			WOLF CREEK 1E			DELMORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	48	30	0.28	29	20	0.75	55	32	0.00	45	21	0.05
2	54	28	0.00	30	15	0.10	60	27	0.03	50	11	0.00
3	64	24	0.00	43	15	0.00	67	24	0.00	56	11	0.00
4	67	29	0.00	45	30	0.00	67	32	0.00	57	17	0.00
5	59	29	0.00	48	31	0.00	63	35	0.00	55	20	0.00
6	49	31	0.07	42	20	0.42	53	33	0.00	43	23	0.05
7	59	24	0.00	34	16	0.14	65	30	0.00	53	23	0.00
8	66	27	0.00	45	19	0.00	71	30	0.00	57	20	0.00
9	70	28	0.00	48	22	0.00	73	35	0.00	63	23	0.00
10	74	30	0.00	50	30	0.00	79	37	0.00	75	23	0.00
11	73	31	0.00	58	32	0.00	80	39	0.00	75	25	0.00
12	71	34	0.00	62	33	0.00	75	36	0.02	64	25	0.00
13	65	31	0.15	52	28	0.00	65	35	0.04	62	25	0.00
14	58	40	0.24	50	30	0.42	61	39	0.02	55	31	0.00
15	61	38	0.07	45	29	0.00	67	30	0.01	62	25	0.00
16	71	30	0.06	48	28	0.00	74	35	0.00	66	22	0.00
17	70	32	0.00	54	30	0.00	72	35	0.00	62	25	0.00
18	77	35	0.00	55	34	0.00	85	42	0.00	69	27	0.30
19	78	34	0.00	62	33	0.00	76	42	0.00	71	27	0.00
20	76	39	0.04	60	32	0.00	71	41	0.00	63	31	0.00
21	69	33	0.01	50	31	0.00	72	39	0.02	63	25	0.50
22	60	30	0.10	50	25	0.10	59	35	0.06	59	30	0.00
23	69	29	0.04	40	23	0.11	70	33	0.01	63	23	0.00
24	08	08	0.00	52	28	0.00	72	37	0.00	64	24	0.00
25	08	08	0.00	52	32	0.00	69	39	0.00	59	25	0.00
26	08	08	0.00	47	30	1.16	59	38	0.20	48	30	0.15
27	68	28	0.00	40	16	0.00	56	30	0.00	54	22	0.00
28	68	23	0.00	47	27	0.00	70	31	0.00	59	21	0.00
29	71	26	0.00	54	30	0.00	75	33	0.00	64	21	0.00
30	73	33	0.00	54	32	0.00	74	34	0.00	62	21	0.00
31	75	27	0.00	58	27	0.00	74	34	0.00	69	18	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION				26.7			68.7			60.2		
				48.5			34.6			23.1		
				1.06			0.41			1.05		
				27.5			3.20			60.2		
				60.1			26.7			23.1		

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A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1973
FOR THE MONTH OF JUNE

DAY	FAGOSA SPRINGS			WOLF CREEK 1E			DELNORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	63	42	0.19	60	33	0.04	65	40	0.19	59	33	0.00
2	56	30	0.18	44	30	0.29	61	38	0.02	54	30	0.00
3	40	30	0.16	34	24	0.45	65	34	0.00	53	23	0.25
4	61	37	0.77	40	27	0.75	64	38	0.13	52	30	0.30
5	68	32	0.00	44	20	0.27	65	30	0.00	62	21	0.00
6	75	32	0.00	52	29	0.00	75	36	0.00	67	23	0.00
7	75	34	0.00	60	32	0.00	77	40	0.00	70	26	0.00
8	83	35	0.00	64	35	0.00	80	46	0.00	72	28	0.00
9	84	40	0.00	68	38	0.00	81	44	0.00	78	31	0.00
10	82	42	0.00	68	36	0.00	85	45	0.00	78	30	0.05
11	80	44	0.00	69	39	0.00	82	46	0.00	75	31	0.00
12	80	33	0.00	64	37	0.00	77	43	0.00	77	28	0.00
13	77	48	0.10	66	38	0.05	70	46	0.03	68	39	0.00
14	64	48	0.39	59	33	0.57	66	43	0.00	60	35	0.10
15	66	37	0.03	45	33	0.00	67	47	0.00	56	33	0.00
16	66	32	0.00	58	33	0.00	70	36	0.00	62	25	0.00
17	85	28	0.00	56	34	0.00	70	35	0.00	65	20	0.00
18	71	34	0.00	55	31	0.00	72	42	0.00	64	25	0.00
19	68	31	0.00	66	23	0.00	65	31	0.00	61	22	0.00
20	78	28	0.00	55	27	0.00	71	35	0.00	69	19	0.00
21	78	32	0.00	57	32	0.00	73	37	0.00	70	24	0.00
22	80	33	0.00	59	33	0.00	77	39	0.00	73	23	0.00
23	80	43	0.00	62	37	0.00	79	45	0.00	73	29	0.00
24	81	35	0.00	66	38	0.00	80	43	0.00	75	26	0.00
25	85	37	0.00	67	36	0.00	80	45	0.00	79	30	0.00
26	89	41	0.00	69	41	0.00	85	50	0.00	82	32	0.00
27	87	43	0.00	74	42	0.00	80	50	0.00	81	34	0.00
28	86	42	0.00	71	42	0.00	79	50	0.18	64	35	0.00
29	85	45	0.00	69	42	0.00	80	46	0.00	80	34	0.00
30	85	37	0.00	71	44	0.00	86	48	0.00	80	32	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION												
	76.1	36.8	1.82	59.7	34.0	2.42	74.2	41.6	0.55	68.6	28.4	0.70

**A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1973
FOR THE MONTH OF JULY**

DAY	FAROSA SPRINGS			WOLF CREEK 1E			DELMORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	85	40	0.00	70	41	0.00	85	52	0.00	80	32	0.00
2	87	40	0.00	69	42	0.00	83	49	0.00	80	33	0.00
3	88	43	0.00	73	45	0.00	81	49	0.00	82	34	0.00
4	87	41	0.00	72	44	0.00	84	50	0.00	80	34	0.00
5	88	40	0.00	70	43	0.00	84	49	0.00	85	32	0.00
6	91	40	0.00	73	43	0.00	86	48	0.00	85	31	0.00
7	88	42	0.00	73	34	0.00	78	53	0.00	79	33	0.00
8	83	54	0.02	70	45	0.00	76	52	0.00	76	44	0.30
9	83	50	0.00	71	44	0.00	73	50	0.08	78	40	0.00
10	84	43	0.07	69	41	0.00	78	48	0.03	78	33	0.00
11	83	46	0.00	62	40	0.25	79	48	0.00	78	35	0.00
12	78	48	0.00	66	41	0.00	80	52	0.00	67	37	0.20
13	78	42	0.01	66	39	0.10	75	46	0.00	73	32	0.00
14	79	48	0.05	66	40	0.17	68	49	0.10	71	39	0.10
15	79	50	0.09	58	41	0.44	72	46	0.27	70	33	0.00
16	79	45	0.00	60	39	0.00	74	48	0.00	71	32	0.00
17	74	52	0.18	62	39	0.00	69	49	0.00	65	44	0.00
18	68	51	0.32	57	43	0.23	69	43	1.10	62	45	0.35
19	73	52	0.21	55	42	0.56	73	45	0.00	69	44	0.00
20	78	40	0.00	60	36	0.05	72	38	0.00	72	34	0.00
21	75	45	0.00	60	40	0.11	70	37	0.00	68	33	0.00
22	75	36	0.00	62	38	0.00	70	33	0.00	69	27	0.00
23	77	31	0.00	58	34	0.10	75	44	0.00	74	23	0.00
24	82	35	0.00	63	38	0.00	79	43	0.00	76	26	0.00
25	82	38	0.00	66	38	0.00	75	43	0.00	75	29	0.00
26	81	46	0.01	65	40	0.00	71	45	0.00	73	29	0.00
27	81	38	0.02	60	38	0.13	71	42	0.00	70	27	0.00
28	81	44	0.00	61	39	0.00	70	45	0.00	70	30	0.15
29	79	40	0.19	62	38	0.47	77	45	0.00	71	29	0.00
30	78	39	0.05	65	38	0.18	67	43	0.00	66	29	0.00
31	76	38	0.00	65	35	0.10	71	42	0.02	70	28	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	80.7	43.1	1.22	64.8	39.9	2.89	75.3	46.0	1.60	73.4	33.3	1.10

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A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1973
FOR THE MONTH OF AUGUST

DAY	FAUOSA SPRINGS			WOLF CREEK 1E			DELMORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	08	07	0.00	58	35	0.00	74	42	0.00	74	27	0.00
2	08	08	0.00	65	37	0.00	74	43	0.00	76	28	0.00
3	08	08	0.00	66	38	0.00	74	43	0.13	72	30	0.00
4	08	08	0.00	66	37	0.40	73	43	0.00	75	30	0.00
5	08	08	0.00	68	38	0.20	77	53	0.00	75	38	0.00
6	08	08	0.00	67	38	0.30	72	46	0.02	72	36	0.25
7	08	08	0.00	65	38	0.60	70	45	0.01	68	34	0.15
8	08	08	0.00	60	37	0.67	77	46	0.00	74	28	0.00
9	08	08	0.00	66	39	0.00	77	45	0.00	77	30	0.00
10	08	08	0.00	66	40	0.05	81	45	0.00	80	28	0.00
11	08	08	0.00	71	40	0.00	77	42	0.00	78	30	0.00
12	08	08	0.00	68	43	0.00	77	46	0.01	77	30	0.00
13	08	08	0.00	62	41	0.00	81	47	0.00	79	33	0.00
14	08	08	0.00	73	45	0.00	73	46	0.02	77	31	0.00
15	08	08	0.00	67	40	0.17	77	45	0.00	80	30	0.15
16	08	08	0.00	72	40	0.00	81	45	0.00	78	32	0.00
17	08	08	0.00	69	42	0.00	81	50	0.00	76	32	0.00
18	08	08	0.00	66	43	0.00	78	49	0.00	73	35	0.00
19	08	08	0.00	68	44	0.00	80	51	0.00	78	33	0.00
20	08	08	0.00	71	40	1.11	78	50	0.00	75	33	0.20
21	08	08	0.00	52	38	0.18	70	49	0.05	64	38	0.15
22	08	08	0.00	64	37	0.06	75	47	0.18	71	35	0.00
23	08	08	0.00	68	38	0.03	77	45	0.00	75	31	0.00
24	08	08	0.00	60	42	0.31	74	53	0.00	71	42	0.00
25	08	08	0.00	60	37	0.21	73	47	0.00	68	35	0.25
26	08	08	0.00	64	40	0.00	75	43	0.26	72	35	0.15
27	08	08	0.00	63	40	0.00	77	42	0.00	71	31	0.00
28	08	08	0.00	66	37	0.00	74	51	0.05	71	38	0.00
29	08	08	0.00	61	37	0.37	72	45	0.00	66	34	0.00
30	08	08	0.00	45	34	0.95	64	52	0.30	57	40	0.45
31	08	08	0.00	49	33	0.03	66	41	0.02	61	33	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	0.0	0.0	0.00	64.1	39.0	5.51	75.1	46.4	1.05	72.9	32.9	1.75

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A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1973
FOR THE MONTH OF SEPTEMBER

DAY	FAGUSA SPRINGS			WOLF CREEK LE			DELMORT			HERMIT 7ESE			PRECIP.
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	
1	65	38	0.01	53	37	0.00	70	40	0.00	63	31	0.00	0.00
2	69	39	0.00	51	35	0.00	66	45	0.00	62	30	0.00	0.00
3	71	25	0.00	51	30	0.00	70	33	0.00	72	16	0.00	0.00
4	78	29	0.00	64	32	0.00	73	37	0.00	72	20	0.00	0.00
5	77	35	0.00	62	34	0.00	73	40	0.00	77	25	0.00	0.00
6	70	38	0.00	61	34	0.00	74	43	0.00	74	31	0.00	0.00
7	78	37	0.00	65	40	0.00	75	42	0.00	73	27	0.00	0.00
8	76	34	0.00	65	37	0.00	76	42	0.00	70	25	0.00	0.00
9	76	35	0.06	60	35	0.44	72	38	0.00	61	21	0.00	0.00
10	67	47	0.63	60	31	1.10	65	48	0.11	56	35	0.60	0.00
11	65	40	0.42	52	30	0.00	65	42	0.14	56	31	0.05	0.00
12	69	35	0.02	55	30	0.00	67	38	0.00	61	27	0.00	0.00
13	74	33	0.00	59	33	0.20	71	40	0.00	69	25	0.00	0.00
14	74	35	0.00	68	34	0.00	71	42	0.00	68	25	0.00	0.00
15	73	35	0.00	61	35	0.00	72	42	0.00	68	26	0.00	0.00
16	72	57	0.00	60	32	0.00	71	41	0.00	66	30	0.00	0.00
17	74	30	0.00	59	32	0.00	75	38	0.00	70	22	0.00	0.00
18	74	28	0.00	58	32	0.00	73	42	0.00	70	20	0.00	0.00
19	74	26	0.00	61	34	0.00	74	38	0.00	72	20	0.00	0.00
20	74	26	0.00	57	34	0.00	76	40	0.00	72	20	0.00	0.00
21	74	28	0.00	58	32	0.00	77	41	0.00	72	18	0.00	0.00
22	75	29	0.00	56	33	0.00	73	37	0.00	70	22	0.00	0.00
23	73	34	0.02	58	27	0.00	66	40	0.00	70	19	0.00	0.00
24	63	31	0.00	45	28	0.00	64	31	0.00	60	19	0.10	0.00
25	58	27	0.20	37	25	0.33	59	32	0.05	52	20	0.00	0.00
26	59	32	0.06	40	22	0.00	51	33	0.11	50	28	0.00	0.00
27	61	24	0.00	45	22	0.00	56	28	0.00	58	18	0.00	0.00
28	68	27	0.06	53	22	0.00	55	35	0.00	56	13	0.00	0.00
29	67	34	0.02	50	29	0.00	65	36	0.00	68	24	0.00	0.00
30	72	30	0.00	57	30	0.00	68	36	0.00	68	24	0.00	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	70.9	33.3	1.50	56.0	31.6	2.07	68.8	38.6	0.41	65.9	23.7	0.75	

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1974
FOR THE MONTH OF APRIL

DAY	FAGOSA SPRINGS			WOLF CREEK 1E			DELMORTE			HERMIT 7ESE			PRECIP.
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	
1	08	08	0.008	31	20	0.30	51	19	0.00	39	19	0.00	0.00
2	08	08	0.008	27	8	0.58	52	30	0.00	28	18	0.35	0.00
3	08	08	0.008	23	3	0.12	40	22	0.00	36	12	0.00	0.00
4	08	08	0.008	27	2	0.00	44	19	0.00	35	12	0.00	0.00
5	08	08	0.008	38	10	0.00	53	13	0.00	38	1	0.00	0.00
6	08	08	0.008	40	10	0.00	60	23	0.00	36	0	0.00	0.00
7	08	08	0.008	40	8	0.00	55	22	0.00	36	0	0.00	0.00
8	08	08	0.008	43	19	0.00	61	18	0.00	38	9	0.00	0.00
9	08	08	0.008	47	14	0.07	65	28	0.00	39	20	0.00	0.00
10	08	08	0.008	21	3	0.35	59	26	0.00	36	12	0.00	0.00
11	08	08	0.008	32	10	0.00	55	20	0.00	37	8	0.00	0.00
12	08	08	0.008	30	2	0.00	51	22	0.00	39	10	0.00	0.00
13	08	08	0.008	32	-5	0.00	45	10	0.00	31	0	0.00	0.00
14	08	08	0.008	32	-5	0.00	48	16	0.00	39	3	0.00	0.00
15	08	08	0.008	42	15	0.00	60	18	0.00	52	3	0.00	0.00
16	08	08	0.008	44	15	0.00	63	25	0.00	56	7	0.00	0.00
17	08	08	0.008	50	25	0.00	70	27	0.00	58	9	0.00	0.00
18	08	08	0.008	48	28	0.00	70	28	0.00	59	10	0.00	0.00
19	08	08	0.008	32	17	0.14	60	31	0.00	46	13	0.03	0.00
20	08	08	0.008	34	13	0.20	52	29	0.00	45	19	0.00	0.00
21	08	08	0.008	41	17	0.00	61	22	0.00	45	10	0.00	0.00
22	08	08	0.008	49	27	0.00	67	25	0.00	61	12	0.00	0.00
23	08	08	0.008	50	37	0.00	70	34	0.00	61	15	0.00	0.00
24	08	08	0.008	65	34	0.00	67	36	0.00	61	24	0.00	0.00
25	08	08	0.008	46	32	0.20	69	34	0.00	57	27	0.10	0.00
26	08	08	0.008	47	32	0.00	65	42	0.00	57	26	0.00	0.00
27	08	08	0.008	42	25	0.00	62	37	0.00	54	11	0.00	0.00
28	08	08	0.008	47	22	0.00	65	27	0.00	56	12	0.00	0.00
29	08	08	0.008	47	20	0.00	63	29	0.00	54	13	0.00	0.00
30	08	08	0.008	49	22	0.00	63	27	0.00	57	11	0.00	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	0.0	6.0	0.00	39.9	16.0	1.96	58.9	25.3	0.00	46.2	11.5	0.50	

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1974
FOR THE MONTH OF MAY

DAY	FAGOSA SPRINGS			WOLF CREEK 1E			DELNORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	68	21	0.00	50	21	0.00	72	25	0.00	60	10	0.00
2	70	22	0.00	52	30	0.00	73	32	0.00	63	15	0.00
3	70	24	0.00	55	20	0.00	69	33	0.00	63	15	0.00
4	71	27	0.00	48	23	0.00	69	37	0.00	63	15	0.00
5	72	28	0.00	56	28	0.00	67	32	0.00	58	15	0.00
6	69	30	0.00	56	26	0.00	70	33	0.00	65	18	0.00
7	72	29	0.00	62	32	0.00	72	37	0.00	63	20	0.00
8	78	29	0.00	67	27	0.00	78	39	0.00	73	19	0.00
9	79	31	0.00	65	34	0.00	76	39	0.00	71	21	0.00
10	75	34	0.00	53	34	0.00	74	40	0.00	68	25	0.00
11	78	34	0.00	58	34	0.00	77	38	0.00	65	17	0.00
12	73	25	0.00	60	35	0.00	79	35	0.00	68	16	0.00
13	73	31	0.00	59	32	0.00	67	50	0.00	60	22	0.00
14	69	36	0.00	50	36	0.00	69	40	0.00	63	22	0.00
15	74	27	0.00	57	37	0.00	74	49	0.00	68	22	0.00
16	72	30	0.00	55	36	0.00	70	49	0.00	68	22	0.00
17	71	30	0.00	56	36	0.00	69	41	0.00	60	21	0.00
18	72	30	0.00	57	35	0.00	76	37	0.00	65	20	0.00
19	74	32	0.00	60	34	0.00	73	37	0.00	62	19	0.00
20	72	18	0.00	59	35	0.00	68	31	0.00	61	18	0.00
21	63	15	0.00	42	30	0.00	65	25	0.00	58	5	0.00
22	72	20	0.00	45	15	0.00	67	30	0.00	65	12	0.00
23	74	38	0.03	49	18	0.00	72	36	0.00	65	17	0.00
24	78	26	0.00	50	21	0.00	65	39	0.00	63	30	0.25
25	78	26	0.00	50	28	0.00	75	37	0.00	68	26	0.00
26	80	33	0.00	65	15	0.00	77	38	0.00	73	22	0.00
27	81	33	0.00	59	15	0.00	77	40	0.00	73	23	0.00
28	79	32	0.00	62	36	0.00	78	39	0.00	73	21	0.00
29	77	30	0.00	65	38	0.00	73	40	0.00	70	19	0.00
30	76	26	0.00	63	39	0.00	75	36	0.00	74	20	0.00
31	75	31	0.00	60	35	0.00	67	40	0.00	65	22	0.00
AVERAGE	73.7	28.2	0.03	56.3	29.5	0.00	72.0	37.2	0.00	65.6	19.0	0.25
TOTAL	PRECIPITATION											

ORIGINAL PAGE IS
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A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1974
FOR THE MONTH OF JUNE

DAY	FAGOSA SPRINGS			WOLF CREEK 1E			DELMORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES
1	71	28	0.00	58	35	0.00	62	26	0.00	66	24	0.00
2	77	31	0.00	60	34	0.15	67	35	0.00	66	17	0.00
3	75	25	0.00	57	32	0.00	65	32	0.00	62	21	0.00
4	77	29	0.00	61	35	0.00	70	37	0.00	70	18	0.00
5	72	32	0.00	55	29	0.00	70	37	0.00	65	22	0.00
6	69	34	0.00	52	30	0.00	65	40	0.00	61	22	0.00
7	67	35	0.00	42	19	0.63	67	34	0.00	58	30	0.00
8	61	28	0.00	40	29	0.00	56	33	0.19	53	23	0.00
9	72	25	0.00	58	28	0.00	70	37	0.00	65	15	0.00
10	79	27	0.00	62	30	0.00	74	36	0.00	71	19	0.00
11	81	30	0.00	64	35	0.00	77	40	0.00	76	21	0.00
12	80	33	0.00	65	38	0.00	77	40	0.00	74	20	0.00
13	84	34	0.00	67	38	0.00	76	45	0.00	77	25	0.00
14	88	35	0.00	68	34	0.00	83	45	0.00	80	24	0.00
15	84	44	0.07	70	36	0.00	77	50	0.00	77	31	0.00
16	85	34	0.00	71	38	0.00	75	45	0.00	76	37	0.70
17	84	34	0.00	71	37	0.00	75	45	0.00	74	31	0.00
18	85	44	0.00	67	40	0.00	75	43	0.00	75	27	0.00
19	88	45	0.00	70	42	0.00	78	46	0.00	80	31	0.00
20	89	44	0.00	71	43	0.00	84	47	0.00	77	30	0.00
21	88	37	0.00	70	38	0.00	82	49	0.00	79	32	0.00
22	87	45	0.00	70	40	0.00	81	48	0.00	81	28	0.00
23	90	38	0.00	70	40	0.00	78	51	0.00	80	35	0.00
24	90	38	0.00	73	44	0.00	84	45	0.00	80	28	0.00
25	88	43	0.00	70	42	0.05	83	47	0.05	80	30	0.00
26	87	44	0.00	67	44	0.00	78	46	0.00	77	32	0.00
27	88	44	0.01	71	45	0.00	84	47	0.00	81	31	0.00
28	90	41	0.00	61	45	0.00	84	49	0.00	85	32	0.00
29	88	46	0.00	63	43	0.00	84	48	0.00	83	30	0.00
30	88	42	0.00	70	42	0.00	82	47	0.04	80	30	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	81.7	36.3	0.08	63.8	36.8	0.83	75.4	42.3	0.28	73.6	26.5	0.70

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1974
FOR THE MONTH OF JULY

DAY	FAGOSA SPRINGS			WOLF CREEK 1E			DELNORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	86	44	0.01	60	42	0.00	75	44	0.00	74	33	0.00
2	81	41	0.01	63	37	0.00	80	46	0.00	76	30	0.00
3	83	32	0.00	67	21	0.00	78	43	0.00	74	25	0.00
4	85	48	0.00	67	37	0.00	79	43	0.00	76	27	0.00
5	83	34	0.00	69	34	0.00	70	43	0.00	71	27	0.00
6	84	38	0.00	64	47	0.00	77	44	0.00	73	26	0.15
7	84	51	0.09	62	42	0.00	73	52	0.10	70	42	0.00
8	80	47	0.22	63	43	0.23	74	48	0.15	71	37	0.00
9	82	41	0.00	62	36	0.00	78	46	0.00	78	32	0.30
10	82	48	0.00	66	42	0.00	79	48	0.00	77	32	0.00
11	87	37	0.00	66	39	0.00	82	46	0.00	79	29	0.00
12	88	37	0.00	65	40	0.00	84	46	0.00	86	30	0.25
13	83	43	0.00	72	40	0.00	80	50	0.00	76	36	0.00
14	79	46	0.25	64	39	0.50	79	48	0.00	75	37	0.65
15	72	50	0.42	65	42	0.69	70	53	0.28	66	43	0.00
16	74	53	0.17	57	45	0.37	72	52	0.03	68	45	0.15
17	81	46	0.05	56	40	0.22	73	49	0.00	70	39	0.00
18	80	52	0.12	64	40	0.73	77	49	0.66	72	11	0.05
19	78	44	0.01	64	39	0.00	78	48	0.02	72	34	0.05
20	80	46	0.01	61	39	0.00	73	48	0.00	72	32	0.00
21	81	43	0.01	66	40	0.05	78	49	0.00	73	35	0.35
22	81	42	0.00	67	38	0.28	78	48	0.00	71	34	0.00
23	82	41	0.00	64	43	0.00	75	50	0.00	73	36	0.05
24	82	45	0.30	65	40	0.12	74	41	0.10	71	36	0.30
25	81	43	0.00	69	41	0.70	73	39	0.00	73	33	0.10
26	85	45	0.01	68	41	0.00	78	41	0.00	75	34	0.25
27	81	46	0.08	65	39	0.00	78	41	0.23	71	36	0.10
28	84	43	0.09	66	37	0.07	78	41	0.00	71	33	0.00
29	80	36	0.00	68	38	0.67	73	45	0.00	73	33	0.00
30	79	42	0.00	62	37	0.00	75	44	0.03	78	33	0.00
31	78	48	0.24	64	38	0.00	73	48	0.32	73	37	0.20
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	81.5	43.6	2.09	64.5	39.2	4.63	76.3	46.2	1.92	73.7	34.1	2.95

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1974
FOR THE MONTH OF AUGUST

DAY	FABOSA SPRINGS			WOLF CREEK 1E			DELMORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	79	44	0.30	62	40	0.23	70	49	0.12	73	37	0.00
2	72	45	0.34	65	40	0.20	65	46	0.05	66	35	0.10
3	79	40	0.64	67	39	0.15	64	50	0.00	65	41	0.30
4	79	40	0.01	68	38	0.25	72	41	0.08	69	35	0.20
5	76	39	0.00	66	37	0.33	76	41	0.00	72	30	0.00
6	76	46	0.12	65	34	0.00	75	46	0.00	72	33	0.00
7	79	48	0.03	65	38	0.00	72	49	0.03	71	39	0.00
8	71	50	0.08	64	38	0.46	63	47	0.06	61	38	0.40
9	73	43	0.09	52	35	0.11	63	43	0.33	64	34	0.00
10	75	36	0.04	56	32	0.43	70	38	0.00	69	34	0.25
11	79	32	0.00	60	33	0.00	75	38	0.00	67	25	0.00
12	81	35	0.00	62	32	0.23	76	41	0.00	67	27	0.05
13	80	42	0.00	64	37	0.00	77	43	0.00	70	31	0.00
14	78	34	0.00	63	38	0.00	78	41	0.00	73	27	0.00
15	81	40	0.00	62	40	0.00	77	46	0.00	74	35	0.00
16	83	36	0.00	65	37	0.00	81	44	0.00	78	29	0.00
17	85	40	0.00	68	40	0.00	80	48	0.00	78	34	0.00
18	86	39	0.00	66	39	0.00	82	47	0.00	80	32	0.00
19	81	45	0.03	70	40	0.00	76	52	0.05	74	38	0.00
20	78	49	0.04	60	41	0.42	75	48	0.05	70	40	0.00
21	79	34	0.00	61	35	0.00	75	41	0.05	70	27	0.00
22	82	38	0.00	63	35	0.00	75	41	0.06	75	27	0.00
23	77	39	0.19	65	36	0.00	75	42	0.00	75	26	0.00
24	73	40	0.00	65	38	0.00	70	45	0.00	70	34	0.00
25	77	46	0.00	60	39	0.00	70	48	0.00	71	40	0.00
26	80	31	0.06	64	38	0.00	75	44	0.00	75	28	0.00
27	79	50	0.00	65	41	0.00	76	52	0.22	73	38	0.00
28	73	42	0.20	60	38	0.00	70	41	0.00	73	33	0.00
29	78	37	0.01	60	36	0.00	76	41	0.00	74	28	0.00
30	80	34	0.00	65	38	0.00	74	38	0.00	71	27	0.00
31	85	35	0.00	66	35	0.00	76	40	0.00	75	26	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	78.5	40.3	2.20	63.4	37.3	2.81	73.5	44.2	1.10	71.5	32.5	1.30

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1974
FOR THE MONTH OF SEPTEMBER

DAY	FAGOSA SPRINGS			WOLF CREEK 1E			DELNORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES
1	80	33	0.00	65	32	0.00	79	42	0.00	77	26	0.00
2	82	34	0.00	65	36	0.00	74	46	0.00	76	32	0.00
3	78	34	0.00	63	35	0.00	69	34	0.00	70	22	0.00
4	80	32	0.00	67	40	0.00	76	35	0.00	71	23	0.00
5	82	31	0.00	66	35	0.00	75	35	0.00	72	24	0.00
6	81	36	0.00	67	36	0.00	79	45	0.00	74	26	0.00
7	81	33	0.00	68	38	0.00	79	40	0.00	74	27	0.00
8	84	33	0.00	65	33	0.00	79	40	0.00	79	21	0.00
9	85	37	0.00	69	35	0.00	77	47	0.24	75	32	0.00
10	84	40	0.00	69	39	0.11	75	44	0.03	77	34	0.00
11	80	38	0.00	67	38	0.00	78	44	0.00	75	28	0.00
12	75	37	0.00	62	38	0.00	73	39	0.00	71	33	0.00
13	71	41	0.00	63	36	0.00	65	38	0.00	67	33	0.00
14	69	46	0.05	61	30	0.20	60	45	0.13	61	37	0.35
15	65	42	0.16	60	29	0.40	58	40	0.80	59	37	0.25
16	65	35	0.00	46	28	0.29	57	39	0.00	62	34	0.00
17	62	37	0.00	49	33	0.00	58	39	0.00	57	35	0.00
18	70	40	0.00	44	30	0.00	66	39	0.00	65	33	0.00
19	76	35	0.00	56	34	0.00	70	40	0.00	71	28	0.00
20	76	32	0.00	57	32	0.00	71	38	0.00	73	25	0.00
21	71	42	0.00	58	33	0.00	68	38	0.00	69	34	0.20
22	73	29	0.26	60	35	0.00	62	39	0.00	66	28	0.00
23	68	39	0.13	60	30	0.48	66	37	0.00	68	28	0.00
24	75	31	0.00	55	31	0.47	71	38	0.00	66	23	0.00
25	72	32	0.13	57	31	0.00	70	37	0.00	66	26	0.00
26	70	30	0.06	57	31	0.00	64	38	0.00	63	21	0.00
27	66	20	0.05	58	29	0.06	66	35	0.08	61	18	0.00
28	64	21	0.00	64	31	0.00	63	27	0.00	63	15	0.00
29	70	21	0.00	65	30	0.00	63	29	0.00	69	13	0.00
30	71	21	0.00	66	31	0.00	68	37	0.00	68	15	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	74.2	33.8	0.84	61.0	33.3	2.01	69.3	38.8	1.12	68.8	27.0	0.80

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1975
FOR THE MONTH OF APRIL

DAY	FAGUSA SPRINGS			WOLF CREEK 1E			MELNORIE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES
1	41	25	0.18	10	0	0.51	42	26	0.16	0*	0*	0.20
2	38	1	0.01	15	-5	0.77	42	9	0.00	0*	0*	0.00
3	53	3	0.00	25	0	0.00	55	13	0.00	0*	0*	0.00
4	57	11	0.00	36	15	0.00	60	22	0.00	0*	0*	0.00
5	57	16	0.00	38	20	0.00	60	30	0.00	0*	0*	0.00
6	59	16	0.00	30	15	0.00	63	23	0.00	0*	0*	0.00
7	58	24	0.01	40	20	0.00	51	29	0.00	0*	0*	0.00
8	34	17	0.05	30	-5	0.45	36	14	0.00	0*	0*	0.10
9	42	17	0.06	15	0	0.28	48	13	0.00	0*	0*	0.00
10	50	21	0.00	26	6	0.00	50	19	0.00	0*	0*	0.00
11	45	29	0.37	32	12	0.43	40	25	0.20	0*	0*	0.50
12	44	29	0.62	30	19	0.80	40	24	0.42	0*	0*	1.00
13	45	26	0.16	28	19	0.33	45	27	0.50	0*	0*	0.00
14	48	17	0.00	33	19	0.05	50	21	0.00	0*	0*	0.00
15	60	26	0.00	32	10	0.00	58	24	0.00	0*	0*	0.00
16	61	20	0.00	40	25	0.00	60	26	0.00	0*	0*	0.00
17	58	33	0.00	45	23	0.00	57	37	0.00	0*	0*	0.00
18	44	22	0.05	32	9	0.15	46	20	0.01	0*	0*	0.00
19	51	14	0.00	28	12	0.03	55	18	0.00	0*	0*	0.00
20	59	24	0.00	33	20	0.00	63	27	0.00	0*	0*	0.00
21	66	22	0.00	40	23	0.00	67	26	0.00	0*	0*	0.00
22	65	27	0.00	46	29	0.00	65	31	0.00	0*	0*	0.00
23	61	24	0.00	44	29	0.00	60	33	0.00	0*	0*	0.00
24	64	23	0.00	45	20	0.00	68	29	0.00	0*	0*	0.00
25	68	22	0.00	45	26	0.00	70	29	0.00	0*	0*	0.00
26	65	21	0.00	50	28	0.00	63	34	0.00	0*	0*	0.00
27	60	25	0.12	50	15	0.38	55	29	0.00	0*	0*	0.00
28	51	17	0.00	22	14	0.23	50	23	0.00	0*	0*	0.00
29	49	20	0.00	20	11	0.00	47	23	0.00	0*	0*	0.00
30	54	14	0.00	30	5	0.00	55	18	0.00	0*	0*	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION				14.5		4.41	54.0	24.1	1.29	0.0	0.0	1.80
			53.6	20.2		1.63						

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1975
FOR THE MONTH OF MAY

DAY	PAGOSA SPRINGS			WOLF CREEK 1E			DELNORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES
1	40	28	0.00	40	19	0.00	58	22	0.00	08	08	0.00
2	57	23	0.00	41	20	0.00	58	29	0.00	08	08	0.00
3	62	20	0.00	38	15	0.12	67	26	0.00	08	08	0.00
4	64	22	0.00	39	15	0.00	64	30	0.00	08	08	0.00
5	60	31	0.17	37	20	0.00	58	37	0.00	08	08	0.30
6	43	21	0.00	38	11	0.53	42	19	0.00	08	08	0.00
7	50	13	0.00	24	12	0.10	49	21	0.00	08	08	0.00
8	62	19	0.00	40	15	0.00	67	25	0.00	08	08	0.00
9	67	22	0.00	43	18	0.00	67	29	0.00	08	08	0.00
10	70	26	0.00	46	20	0.00	74	33	0.00	08	08	0.00
11	73	24	0.00	50	16	0.00	77	33	0.00	08	08	0.00
12	69	22	0.00	53	12	0.00	70	33	0.00	08	08	0.00
13	72	25	0.00	54	15	0.00	70	35	0.00	08	08	0.00
14	77	28	0.00	54	15	0.00	78	35	0.00	08	08	0.00
15	74	31	0.00	56	28	0.00	72	38	0.00	08	08	0.00
16	71	35	0.00	59	32	0.00	70	38	0.00	08	08	0.00
17	69	38	0.00	58	32	0.00	69	38	0.00	08	08	0.00
18	65	32	0.02	51	32	0.00	73	40	0.00	08	08	0.00
19	66	29	0.00	49	30	0.00	66	35	0.00	08	08	0.00
20	68	36	0.01	49	29	0.03	67	46	0.00	08	08	0.00
21	65	42	0.00	47	31	0.00	67	45	0.00	08	08	0.00
22	59	31	0.10	43	24	0.25	65	35	0.00	08	08	0.20
23	55	21	0.02	38	19	0.00	51	28	0.05	08	08	0.00
24	66	22	0.00	34	19	0.09	68	27	0.00	08	08	0.00
25	72	27	0.00	49	29	0.00	72	37	0.00	08	08	0.00
26	72	34	0.00	52	32	0.00	72	38	0.00	08	08	0.00
27	72	33	0.00	54	34	0.00	71	37	0.02	08	08	0.00
28	69	36	0.32	53	24	0.13	68	43	0.00	08	08	0.00
29	55	34	0.08	51	26	0.15	55	36	0.00	08	08	0.00
30	61	36	0.05	39	25	0.00	65	34	0.00	08	08	0.00
31	65	30	0.00	49	27	0.00	65	38	0.01	08	08	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	64.8	28.1	0.77	46.1	22.5	1.42	65.6	33.5	0.08	0.0	0.0	0.50

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1975
FOR THE MONTH OF JUNE

DAY	LAGOSA SPRINGS			WOLF CREEK 1E			DELMORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	74	33	0.00	49	29	0.00	69	38	0.00	65	28	0.00
2	77	33	0.00	57	32	0.00	72	38	0.00	69	29	0.00
3	76	34	0.00	60	33	0.00	74	38	0.00	69	26	0.00
4	76	36	0.00	59	35	0.00	75	44	0.00	69	30	0.00
5	77	30	0.00	60	32	0.00	79	37	0.00	71	25	0.00
6	76	33	0.00	63	34	0.00	74	42	0.00	69	30	0.00
7	74	35	0.00	61	34	0.00	74	42	0.00	69	30	0.00
8	73	39	0.17	60	33	0.15	69	43	0.00	63	37	0.35
9	66	33	0.00	62	28	0.16	68	35	0.00	63	26	0.00
10	66	35	0.20	51	28	0.15	62	34	0.30	52	28	0.15
11	73	25	0.00	47	20	0.00	62	30	0.00	64	25	0.00
12	75	27	0.00	55	25	0.00	69	36	0.00	69	24	0.00
13	80	31	0.00	56	28	0.00	78	41	0.00	71	31	0.00
14	79	33	0.00	59	30	0.00	76	40	0.00	69	34	0.00
15	80	33	0.00	62	30	0.00	78	45	0.00	70	30	0.00
16	79	32	0.00	65	29	0.00	73	42	0.02	70	38	0.00
17	78	37	0.00	57	32	0.00	72	42	0.00	68	29	0.00
18	72	42	0.14	60	37	0.00	70	47	0.09	55	40	0.30
19	68	32	0.04	65	24	0.00	62	36	0.00	58	27	0.00
20	68	30	0.00	52	29	1.44	70	36	0.00	58	25	0.00
21	69	39	0.00	50	33	0.00	68	39	0.00	71	30	0.00
22	72	29	0.00	51	30	0.00	69	37	0.00	66	26	0.00
23	78	31	0.00	53	33	0.00	76	39	0.00	70	26	0.00
24	81	33	0.00	61	33	0.00	77	41	0.00	73	26	0.00
25	78	30	0.00	63	35	0.00	75	38	0.00	66	30	0.00
26	78	24	0.00	64	29	0.00	74	35	0.00	76	21	0.00
27	83	29	0.00	63	33	0.00	80	40	0.00	80	25	0.00
28	80	30	0.00	64	34	0.00	80	42	0.00	80	26	0.00
29	82	33	0.00	66	36	0.00	82	41	0.00	78	26	0.00
30	86	33	0.00	64	33	0.00	81	42	0.00	80	27	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION												
	75.8	32.5	0.55	58.6	31.0	1.90	73.0	39.3	0.41	68.4	28.5	0.60

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1975
FOR THE MONTH OF JULY

DAY	FARGOSA SPRINGS			WOLF CREEK 1E			DELMORTE			HERMIT 7ESE			PRECIP. INCHES							
	MAX DEG. F	MIN DEG. F	PRECIP. INCHES	MAX DEG. F	MIN DEG. F	PRECIP. INCHES	MAX DEG. F	MIN DEG. F	PRECIP. INCHES	MAX DEG. F	MIN DEG. F	PRECIP. INCHES								
1	88	39	0.00	68	39	0.00	82	45	0.00	84	10	0.00								
2	82	46	0.00	69	41	0.00	80	49	0.00	81	35	0.00								
3	82	49	0.00	64	37	0.00	77	48	0.00	78	37	0.00								
4	80	36	0.00	68	38	0.00	77	48	0.60	82	37	0.20								
5	82	42	0.00	66	37	0.00	78	47	0.00	78	38	0.00								
6	79	48	0.08	67	36	0.03	75	54	0.00	72	40	0.20								
7	83	44	0.00	69	38	0.00	79	50	0.00	74	42	0.30								
8	80	51	0.00	67	42	0.02	77	54	0.60	74	40	0.00								
9	80	53	0.00	66	35	0.19	70	50	0.21	74	45	0.00								
10	73	49	0.25	61	41	0.58	70	57	0.00	69	48	0.25								
11	77	51	0.13	61	39	0.21	73	49	0.12	76	48	0.00								
12	77	49	0.06	63	41	0.00	73	52	0.00	74	44	0.40								
13	76	48	0.08	60	39	0.20	74	49	0.04	76	46	0.00								
14	83	46	0.01	62	42	0.35	73	49	0.00	75	40	0.00								
15	79	46	0.03	62	42	0.00	75	48	0.05	70	40	0.05								
16	76	48	0.05	63	40	0.32	70	49	0.01	74	42	0.00								
17	76	48	0.05	59	42	0.25	72	52	0.02	80	43	0.20								
18	82	40	0.00	61	38	0.00	79	47	0.00	76	35	0.00								
19	84	44	0.00	62	43	0.00	80	52	0.00	78	38	0.00								
20	85	46	0.55	63	44	0.00	74	52	0.00	73	40	0.85								
21	81	42	0.16	67	38	0.30	78	49	0.00	75	40	0.00								
22	84	44	0.00	67	41	0.00	81	49	0.00	75	38	0.00								
23	85	44	0.00	71	41	0.00	80	49	0.00	75	36	0.20								
24	82	47	0.00	67	39	0.00	75	46	0.00	73	35	0.00								
25	76	42	0.05	66	37	0.00	75	45	0.07	70	37	0.15								
26	80	40	0.00	64	34	0.35	75	45	0.00	78	34	0.00								
27	82	42	0.00	68	37	0.00	77	45	0.00	75	34	0.00								
28	80	41	0.00	66	35	0.29	77	46	0.00	75	33	0.70								
29	80	45	0.00	66	40	0.00	71	50	0.30	73	42	0.50								
30	77	45	0.05	64	37	2.38	69	48	0.00	79	42	0.15								
31	80	40	0.00	57	38	0.00	74	46	0.00	70	35	0.00								
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION													2.02	75.4	39.2	4.15				
80.4			45.0			64.6			39.1			5.53			75.5			49.0		

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1975
FOR THE MONTH OF AUGUST

DAY	PAGOSA SPRINGS			WOLF CREEK IE			DELMORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	82	40	0.00	62	38	0.00	74	48	0.00	74	35	0.00
2	81	40	0.00	66	37	0.00	74	45	0.00	73	34	0.00
3	80	34	0.00	66	35	0.00	74	41	0.00	76	30	0.00
4	83	44	0.00	65	39	0.00	77	44	0.00	78	32	0.00
5	84	42	0.00	63	38	0.00	79	48	0.00	78	32	0.00
6	84	41	0.00	65	40	0.00	79	47	0.00	76	32	0.00
7	85	43	0.00	68	43	0.00	80	51	0.03	77	36	0.00
8	85	44	0.00	69	42	0.00	80	49	0.00	80	35	0.00
9	80	46	0.00	70	41	0.00	72	48	0.08	77	38	0.00
10	81	45	0.28	68	38	0.00	74	47	0.00	77	36	0.00
11	74	45	0.04	66	36	0.20	73	54	0.08	70	44	0.00
12	76	52	0.10	64	35	0.15	71	55	0.00	66	45	0.05
13	72	49	0.63	63	37	0.13	69	51	0.05	65	44	0.00
14	75	39	0.03	58	35	0.00	70	43	0.08	67	32	0.00
15	79	35	0.00	62	33	0.07	72	42	0.00	73	28	0.25
16	78	39	0.00	66	36	0.00	73	44	0.00	68	31	0.00
17	79	41	0.00	65	36	0.00	73	44	0.00	74	32	0.00
18	79	40	0.00	64	34	0.00	78	49	0.00	72	35	0.00
19	78	34	0.00	60	32	0.06	74	42	0.00	72	27	0.00
20	77	48	0.13	62	37	0.00	67	52	0.00	59	41	0.00
21	73	50	0.51	54	41	0.63	70	43	0.12	69	43	0.00
22	75	42	0.00	57	39	0.12	70	43	0.00	71	36	0.00
23	79	41	0.00	59	38	0.00	75	45	0.00	72	31	0.00
24	77	36	0.00	63	45	0.00	70	44	0.00	73	27	0.00
25	79	33	0.00	62	35	0.00	74	42	0.00	73	29	0.00
26	81	36	0.00	68	35	0.00	76	43	0.00	76	29	0.00
27	79	46	0.00	66	36	0.18	72	48	0.03	69	34	0.00
28	75	42	0.16	64	33	0.00	74	46	0.09	72	36	0.00
29	80	32	0.00	60	34	0.00	75	41	0.00	77	26	0.00
30	81	33	0.00	64	37	0.00	77	44	0.00	78	29	0.00
31	82	32	0.00	67	38	0.00	80	41	0.00	79	24	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	79.1	40.8	1.88	63.7	37.2	1.54	74.3	46.1	0.64	72.9	33.6	0.30

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1975
FOR THE MONTH OF SEPTEMBER

DAY	FAGUSA SPRINGS			WOLF CREEK 1E			DELMORTE			HERMIT 7ESE			PRECIP.		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	82	35	0.00	67	35	0.00	78	45	0.00	77	27	0.00	77	27	0.00
2	82	40	0.00	68	38	0.00	77	47	0.00	72	35	0.00	72	35	0.00
3	80	40	0.00	64	37	0.00	72	46	0.00	72	32	0.00	72	32	0.00
4	71	50	0.13	64	41	0.04	68	50	0.09	66	39	0.00	66	39	0.00
5	73	40	0.00	57	35	0.05	67	43	0.00	75	32	0.00	75	32	0.00
6	75	40	0.00	61	35	0.11	72	43	0.00	75	32	0.00	75	32	0.00
7	70	42	0.00	60	36	0.00	68	44	0.00	69	32	0.00	69	32	0.00
8	73	48	0.08	57	38	0.09	68	49	0.06	70	40	0.35	70	40	0.35
9	68	41	0.18	51	38	0.06	63	47	0.20	64	44	0.00	64	44	0.00
10	73	40	0.00	60	35	0.00	68	42	0.00	67	33	0.00	67	33	0.00
11	69	38	0.22	60	36	0.00	63	42	0.20	60	30	0.30	60	30	0.30
12	70	44	0.31	60	35	0.83	55	45	0.30	58	37	0.15	58	37	0.15
13	60	39	0.12	52	32	0.10	58	40	0.15	60	32	0.15	60	32	0.15
14	65	44	0.50	50	33	0.76	61	42	0.10	60	36	0.20	60	36	0.20
15	71	34	0.01	49	30	0.00	68	39	0.00	66	29	0.00	66	29	0.00
16	75	37	0.00	58	32	0.00	70	40	0.00	70	30	0.00	70	30	0.00
17	75	36	0.00	61	33	0.00	75	43	0.00	70	32	0.00	70	32	0.00
18	73	36	0.00	60	34	0.00	72	42	0.00	69	29	0.00	69	29	0.00
19	72	32	0.00	57	29	0.00	68	37	0.00	67	25	0.00	67	25	0.00
20	68	27	0.00	55	30	0.00	65	32	0.00	62	16	0.00	62	16	0.00
21	64	34	0.07	57	26	0.27	57	35	0.03	60	19	0.00	60	19	0.00
22	66	28	0.00	49	24	0.00	62	30	0.00	67	19	0.00	67	19	0.00
23	72	28	0.00	55	27	0.00	64	33	0.00	72	18	0.00	72	18	0.00
24	70	29	0.00	57	28	0.00	67	33	0.00	69	21	0.00	69	21	0.00
25	72	26	0.00	55	29	0.00	69	35	0.00	68	18	0.00	68	18	0.00
26	73	25	0.00	60	29	0.00	70	35	0.00	66	17	0.00	66	17	0.00
27	74	27	0.00	56	27	0.00	72	36	0.00	65	17	0.00	65	17	0.00
28	72	25	0.00	59	30	0.00	68	33	0.00	69	16	0.00	69	16	0.00
29	73	24	0.00	58	28	0.00	68	34	0.00	67	16	0.00	67	16	0.00
30	71	25	0.00	59	29	0.00	65	33	0.00	66	16	0.00	66	16	0.00
AVERAGE	71.7	35.1	1.64	57.9	32.3	2.31	67.3	39.8	1.13	67.3	27.4	1.15	67.3	27.4	1.15

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1974
FOR THE MONTH OF APRIL

DAY	LAGOSA SPRINGS			WOLF CREEK 1E			DELMORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	63	15	0.00	45	15	0.00	60	24	0.00	40	5	0.00
2	64	19	0.00	48	28	0.00	64	27	0.00	37	6	0.00
3	64	16	0.00	43	28	0.00	65	25	0.00	40	6	0.00
4	60	30	0.00	49	23	0.06	57	31	0.00	36	10	0.00
5	58	35	0.05	45	19	0.00	51	28	0.00	36	12	0.10
6	48	18	0.00	41	10	0.38	47	21	0.04	34	8	0.00
7	61	19	0.00	28	9	0.00	60	25	0.00	36	11	0.00
8	60	21	0.00	45	24	0.00	60	25	0.00	41	10	0.00
9	65	26	0.00	43	25	0.00	63	27	0.00	48	18	0.00
10	66	17	0.00	44	18	0.00	68	26	0.00	45	12	0.00
11	69	22	0.00	51	22	0.00	67	31	0.00	50	10	0.00
12	62	30	0.10	50	26	0.00	63	30	0.22	37	20	0.30
13	56	33	0.00	43	26	0.43	52	32	0.00	40	15	0.00
14	52	36	0.00	35	22	0.29	54	30	0.07	42	18	0.50
15	44	30	0.21	35	20	0.66	50	30	0.11	38	15	0.00
16	41	25	0.20	28	10	0.43	55	27	0.00	35	18	0.00
17	40	21	0.42	28	4	0.44	39	23	0.17	39	18	0.35
18	47	27	0.02	25	10	0.37	45	15	0.00	39	14	0.00
19	55	29	0.01	30	19	0.25	52	30	0.17	37	14	0.10
20	58	24	0.00	38	12	0.00	60	24	0.00	40	19	0.00
21	64	21	0.00	40	9	0.00	65	28	0.00	43	20	0.00
22	64	23	0.00	46	22	0.00	62	30	0.00	39	16	0.00
23	63	25	0.00	42	20	0.00	65	30	0.00	39	15	0.00
24	66	19	0.00	44	13	0.00	68	24	0.00	58	18	0.00
25	67	20	0.00	48	21	0.00	66	27	0.00	57	17	0.00
26	63	25	0.00	41	21	0.00	57	34	0.00	55	37	0.00
27	61	24	0.00	43	24	0.00	60	38	0.00	60	29	0.00
28	64	21	0.00	41	20	0.00	66	32	0.00	58	21	0.00
29	65	33	0.00	47	25	0.00	61	35	0.00	56	20	0.00
30	62	24	0.00	44	19	0.00	61	29	0.00	50	17	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	59.1	24.3	1.01	41.0	18.8	3.31	58.8	27.9	0.71	43.5	15.4	1.35

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1976
FOR THE MONTH OF MAY

DAY	LAGUNA SPRINGS			WOLF CREEK LE			DELMORTE			HERMIT 7ESE			PRECIP, INCHES
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	
1	51	19	0.00	42	12	0.00	65	24	0.00	57	15	0.00	0.00
2	68	20	0.00	45	17	0.00	69	29	0.00	61	15	0.00	0.00
3	69	27	0.00	50	25	0.00	70	32	0.00	61	20	0.00	0.00
4	66	40	0.00	49	29	0.02	64	40	0.00	57	29	0.00	0.00
5	69	30	0.00	45	25	0.00	67	37	0.00	58	26	0.00	0.00
6	62	32	0.33	51	29	0.41	47	37	0.83	53	30	0.20	0.20
7	55	31	0.68	49	25	1.45	52	34	0.19	58	31	0.35	0.35
8	50	34	0.07	41	25	0.08	50	32	0.19	51	30	0.00	0.00
9	41	33	0.22	39	28	1.11	61	32	0.00	56	26	0.00	0.00
10	68	29	0.00	42	22	0.00	66	33	0.00	60	22	0.00	0.00
11	70	32	0.00	51	29	0.00	69	35	0.00	62	23	0.00	0.00
12	67	23	0.00	54	23	0.00	63	35	0.00	54	24	0.00	0.00
13	70	27	0.00	44	20	0.00	69	38	0.00	60	19	0.00	0.00
14	79	30	0.00	49	32	0.00	81	40	0.00	69	25	0.00	0.00
15	78	32	0.00	58	36	0.00	80	38	0.00	69	24	0.00	0.00
16	75	31	0.00	58	29	0.00	70	33	0.00	66	27	0.00	0.00
17	75	32	0.00	58	25	0.00	72	32	0.00	70	21	0.00	0.00
18	72	38	0.00	63	32	0.00	70	32	0.00	66	28	0.00	0.00
19	73	36	0.06	60	29	0.08	71	39	0.00	63	29	0.00	0.00
20	68	38	0.16	53	27	0.15	67	40	0.00	57	35	0.00	0.00
21	62	42	0.53	46	34	0.51	62	44	0.30	57	26	0.00	0.00
22	61	33	0.10	46	25	0.09	59	34	0.05	62	24	0.00	0.00
23	69	30	0.00	53	25	0.00	65	33	0.00	61	23	0.00	0.00
24	70	31	0.00	51	26	0.00	67	35	0.00	62	24	0.00	0.00
25	70	36	0.00	52	31	0.00	63	42	0.00	64	30	0.00	0.00
26	70	30	0.00	55	25	0.00	64	35	0.00	66	27	0.00	0.00
27	73	34	0.00	57	28	0.00	72	37	0.00	68	24	0.00	0.00
28	75	34	0.00	60	31	0.00	75	40	0.00	68	25	0.00	0.00
29	74	34	0.00	60	31	0.00	73	40	0.00	68	23	0.00	0.00
30	72	33	0.00	60	29	0.00	66	38	0.00	62	23	0.00	0.00
31	72	31	0.00	52	31	0.00	70	40	0.00	65	25	0.00	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION													
	68.5	31.7	2.15	51.4	26.9	3.90	66.5	35.8	1.56	61.6	24.9	0.55	

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1976
FOR THE MONTH OF JUNE

DAY	FAGOSA SPRINGS			WOLF CREEK 1E			DELMORTE			HERMIT 7ESE			PRECIP, INCHES
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	
1	77	33	0.00	59	24	0.00	72	39	0.00	70	25	0.00	0.00
2	77	41	0.00	61	33	0.00	72	40	0.00	69	28	0.00	0.00
3	77	36	0.00	60	33	0.00	75	40	0.00	72	26	0.00	0.00
4	77	38	0.00	60	33	0.00	75	42	0.00	70	27	0.00	0.00
5	78	37	0.00	60	33	0.00	76	42	0.00	73	25	0.00	0.00
6	75	42	0.00	59	30	0.00	73	43	0.00	70	30	0.45	0.00
7	77	36	0.04	62	32	0.17	71	41	0.00	70	38	0.10	0.00
8	77	40	0.06	55	33	0.12	72	42	0.28	68	33	0.00	0.00
9	78	42	0.00	55	33	0.09	76	44	0.00	70	32	0.00	0.00
10	78	37	0.00	57	31	0.00	76	46	0.00	65	30	0.00	0.00
11	80	35	0.00	65	33	0.00	72	48	0.00	65	21	0.00	0.00
12	76	26	0.00	57	30	0.00	70	32	0.00	61	35	0.00	0.00
13	73	28	0.00	55	31	0.00	71	36	0.00	65	23	0.00	0.00
14	73	37	0.00	50	35	0.00	66	41	0.00	60	35	0.00	0.00
15	69	26	0.00	56	20	0.00	67	30	0.00	66	21	0.00	0.00
16	75	28	0.00	60	31	0.00	75	37	0.00	70	23	0.00	0.00
17	75	35	0.00	55	36	0.00	70	45	0.00	65	28	0.00	0.00
18	75	34	0.00	53	29	0.00	72	36	0.00	66	25	0.00	0.00
19	80	30	0.00	62	28	0.00	74	36	0.00	75	25	0.00	0.00
20	85	35	0.00	66	35	0.00	81	42	0.00	79	26	0.00	0.00
21	84	43	0.00	54	36	0.00	81	49	0.00	76	37	0.00	0.00
22	78	40	0.19	53	38	0.03	77	46	0.07	71	38	0.10	0.00
23	71	35	0.00	55	25	0.00	68	40	0.03	65	28	0.00	0.00
24	71	33	0.00	59	23	0.00	66	35	0.00	64	23	0.00	0.00
25	75	39	0.00	63	24	0.00	74	37	0.00	71	20	0.00	0.00
26	82	30	0.00	58	32	0.00	81	42	0.00	77	27	0.00	0.00
27	85	34	0.00	64	32	0.00	82	42	0.00	81	28	0.00	0.00
28	87	36	0.00	48	39	0.00	81	46	0.00	83	30	0.00	0.00
29	83	43	0.04	48	40	0.00	73	46	0.00	74	33	0.00	0.00
30	79	48	0.00	65	39	0.05	75	45	0.29	73	38	0.65	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION													
	77.6	35.9	0.33	59.1	31.7	0.46	73.8	41.0	0.67	70.1	28.6	1.30	

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1976
FOR THE MONTH OF JULY

DAY	FAGOSA SPRINGS			WOLF CREEK 1E			DELNORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES
1	79	47	0.02	62	36	0.73	75	45	0.00	70	36	0.20
2	82	48	0.00	62	37	0.00	72	46	0.06	75	39	0.00
3	84	40	0.00	61	37	0.00	77	44	0.00	79	33	0.00
4	85	39	0.00	62	38	0.00	79	47	0.00	77	32	0.00
5	88	42	0.00	60	36	0.00	80	46	0.00	81	33	0.00
6	85	48	0.00	61	36	0.07	80	50	0.00	78	37	0.00
7	85	42	0.00	58	39	0.11	79	48	0.00	78	40	0.00
8	85	47	0.00	58	37	0.00	79	46	0.00	81	35	0.00
9	88	44	0.00	65	38	0.00	84	48	0.00	86	35	0.00
10	90	45	0.00	61	38	0.00	85	52	0.00	83	36	0.00
11	90	45	0.00	64	38	0.00	80	50	0.00	78	37	0.00
12	84	50	0.24	65	40	0.00	82	53	0.00	77	37	0.35
13	80	40	0.00	62	37	0.17	77	51	0.00	75	41	0.00
14	82	45	0.01	65	37	0.07	78	50	0.00	80	37	0.00
15	85	43	0.00	63	37	0.00	79	48	0.00	75	34	0.00
16	82	42	0.18	64	38	0.00	75	49	0.17	77	38	0.20
17	85	46	0.00	65	38	0.03	77	47	0.00	77	37	0.00
18	85	50	0.00	62	41	0.07	79	53	0.00	78	41	0.00
19	78	52	0.00	62	41	0.00	75	51	0.04	75	40	0.00
20	82	45	0.00	61	37	0.00	73	48	0.00	77	37	0.15
21	82	48	0.00	62	41	0.34	75	54	0.00	76	46	0.00
22	85	51	0.00	60	37	0.00	78	48	0.13	80	37	0.00
23	81	42	0.00	62	39	0.00	75	48	0.00	83	40	0.00
24	79	52	0.30	61	36	0.02	70	46	0.00	72	33	0.00
25	77	52	0.13	60	34	0.00	73	53	0.00	70	45	0.00
26	74	51	0.46	61	36	0.59	70	50	0.00	69	41	0.35
27	76	46	0.10	63	36	0.08	75	49	0.00	72	37	0.00
28	82	43	0.00	61	36	0.00	79	47	0.00	77	32	0.00
29	86	45	0.00	65	38	0.00	80	47	0.00	82	34	0.00
30	86	51	0.07	65	40	0.00	81	54	0.00	80	44	0.00
31	81	45	0.33	60	38	0.00	78	51	0.00	80	34	0.10
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	83.0	46.0	1.54	62.0	37.6	2.28	77.4	49.0	0.40	77.4	37.4	1.35

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1976
FOR THE MONTH OF AUGUST

DAY	FAOUSA SPRINGS			WOLF CREEK 1E			DELNORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES
1	74	50	0.09	52	36	0.24	70	48	0.62	75	44	0.10
2	77	47	0.11	54	35	0.03	67	48	0.00	73	45	0.15
3	75	47	0.08	57	35	0.00	70	45	0.36	66	38	0.20
4	78	41	0.01	58	30	0.20	73	47	0.00	70	35	0.00
5	79	36	0.00	59	32	0.00	72	41	0.00	80	28	0.00
6	81	32	0.00	61	34	0.00	79	41	0.00	76	26	0.00
7	82	41	0.00	56	36	0.00	77	45	0.00	76	28	0.00
8	76	46	0.09	58	35	0.19	71	51	0.00	69	40	0.00
9	73	51	0.23	53	39	0.17	67	50	0.16	66	41	0.45
10	78	44	0.00	56	36	0.09	65	44	0.06	65	32	0.00
11	79	47	0.05	56	34	0.38	67	45	0.05	62	32	0.15
12	82	40	0.00	58	34	0.02	73	41	0.00	74	33	0.00
13	81	46	0.00	59	38	0.16	69	46	0.00	70	34	0.00
14	81	37	0.00	52	33	0.00	76	42	0.00	72	28	0.00
15	78	41	0.00	64	36	0.00	75	42	0.00	69	29	0.00
16	78	37	0.00	56	38	0.00	75	43	0.00	72	30	0.00
17	77	49	0.00	61	42	0.00	72	46	0.22	70	35	0.00
18	74	53	0.20	58	40	0.09	67	51	0.80	69	45	0.20
19	76	49	0.30	57	38	0.40	70	45	0.00	72	40	0.25
20	81	45	0.00	56	37	0.03	74	49	0.00	68	38	0.45
21	84	53	0.00	64	38	0.00	76	49	0.00	72	39	0.35
22	78	41	0.11	61	42	0.00	71	50	0.00	75	37	0.00
23	82	41	0.12	59	34	0.40	77	45	0.00	72	35	0.00
24	78	40	0.23	58	34	0.12	75	45	0.00	72	35	0.00
25	80	40	0.00	60	36	0.04	77	45	0.00	74	34	0.00
26	81	47	0.00	58	35	0.04	77	45	0.05	68	33	0.00
27	81	38	0.29	62	36	0.25	75	49	0.03	72	35	0.10
28	78	40	0.01	58	35	0.00	74	44	0.00	75	31	0.20
29	76	39	0.02	59	32	0.17	72	44	0.00	69	34	0.00
30	76	33	0.16	56	31	0.22	73	42	0.00	77	31	0.00
31						0.00	67	42	0.00	69	32	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	78.2	43.5	2.10	57.9	35.7	3.31	72.0	45.6	2.37	71.3	34.7	2.60

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1976
FOR THE MONTH OF SEPTEMBER

DAY	PAGOSA SPRINGS			WOLF CREEK 1E			DELMORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES
1	75	42	0.00	57	35	0.00	67	40	0.00	71	30	0.00
2	79	35	0.00	59	31	0.00	74	37	0.00	75	26	0.00
3	83	37	0.00	62	33	0.00	76	43	0.00	78	27	0.00
4	85	38	0.00	57	39	0.00	78	46	0.00	78	28	0.00
5	84	38	0.02	57	35	0.00	77	44	0.00	78	28	0.00
6	72	50	0.50	57	39	0.00	72	48	0.03	68	38	0.00
7	71	40	0.01	57	35	0.39	70	43	0.18	70	33	0.15
8	75	38	0.00	41	32	0.05	69	40	0.00	69	27	0.00
9	70	47	0.00	45	35	0.16	66	44	0.00	69	33	0.00
10	57	46	0.47	40	35	0.25	65	46	0.00	61	39	0.00
11	70	46	0.02	60	36	0.10	69	43	0.00	62	34	0.00
12	70	39	0.00	48	34	0.05	70	43	0.00	60	33	0.00
13	75	38	0.00	40	30	0.00	72	41	0.00	70	26	0.00
14	76	49	0.00	45	38	0.00	73	46	0.00	69	33	0.00
15	73	49	0.00	43	40	0.19	68	47	0.18	62	40	0.35
16	72	45	0.02	50	34	0.00	70	43	0.35	65	35	0.00
17	73	42	0.00	57	35	0.05	70	43	0.00	67	35	0.00
18	72	37	0.05	57	31	0.00	70	41	0.00	65	33	0.00
19	75	32	0.00	59	31	0.00	67	40	0.00	68	25	0.00
20	74	38	0.00	58	29	0.00	65	39	0.00	65	33	0.00
21	74	36	0.01	47	29	0.06	66	39	0.04	63	26	0.00
22	66	37	0.80	50	28	0.28	66	41	0.10	59	30	0.35
23	70	34	0.00	45	27	0.00	67	37	0.00	70	23	0.00
24	68	44	0.11	46	32	0.00	64	42	0.00	60	32	0.10
25	58	45	0.60	35	29	0.90	59	44	0.32	57	37	0.20
26	53	45	0.75	35	30	1.65	56	44	0.04	55	36	0.15
27	60	42	0.15	35	29	0.10	50	33	0.38	53	32	0.05
28	63	33	0.27	35	19	0.07	57	34	0.00	56	21	0.00
29	68	28	0.00	40	22	0.00	61	32	0.00	65	17	0.00
30	73	30	0.00	47	25	0.00	66	35	0.00	69	20	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	71.1	40.0	3.78	48.8	31.9	4.30	67.3	41.3	1.62	65.9	30.3	1.35

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1977
FOR THE MONTH OF APRIL

DAY	FAOUSA SPRINGS			WOLF CREEK 1E			DELNORTE			HERMIT PESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	45	22	0.02	26	9	0.11	37	23	0.06	38	14	0.20
2	36	24	0.26	15	5	0.90	40	15	0.00	40	14	0.30
3	42	21	0.05	11	4	0.36	37	21	0.00	37	12	0.00
4	51	5	0.00	26	4	0.09	52	17	0.00	35	10	0.00
5	59	18	0.00	27	9	0.00	60	19	0.00	40	15	0.00
6	64	21	0.00	43	4	0.00	64	25	0.00	45	15	0.00
7	67	23	0.00	48	21	0.00	65	30	0.00	54	16	0.00
8	70	22	0.00	52	24	0.00	71	32	0.00	56	15	0.00
9	71	22	0.00	55	28	0.00	73	29	0.00	60	19	0.00
10	68	31	0.00	52	33	0.00	70	32	0.21	62	25	0.00
11	59	35	0.08	49	25	0.38	61	37	0.00	50	26	0.00
12	60	21	0.00	40	15	0.03	61	28	0.00	55	19	0.00
13	63	30	0.00	41	15	0.00	60	32	0.00	50	20	0.00
14	65	23	0.00	47	24	0.00	62	28	0.00	58	20	0.00
15	58	28	0.00	47	24	0.00	51	36	0.00	61	21	0.00
16	64	22	0.00	46	21	0.00	62	29	0.02	60	12	0.00
17	72	23	0.00	44	23	0.00	68	29	0.00	61	14	0.00
18	70	28	0.00	56	28	0.00	68	33	0.00	57	12	0.00
19	65	38	0.11	53	24	0.00	58	38	0.00	60	18	0.00
20	50	33	0.17	51	24	0.73	49	30	0.18	47	23	0.35
21	60	25	0.10	35	15	0.40	62	28	0.00	54	11	0.00
22	68	24	0.00	43	19	0.00	66	30	0.00	61	15	0.00
23	70	25	0.00	46	25	0.00	68	32	0.00	65	21	0.00
24	66	29	0.00	53	27	0.00	62	34	0.00	60	23	0.00
25	65	30	0.00	48	26	0.03	60	30	0.01	60	20	0.00
26	65	27	0.00	50	25	0.00	67	31	0.00	62	25	0.00
27	69	28	0.00	45	28	0.00	69	32	0.00	62	21	0.00
28	68	41	0.00	53	32	0.00	59	35	0.06	50	29	0.30
29	67	26	0.00	48	28	0.00	64	35	0.00	59	30	0.00
30	74	27	0.00	50	28	0.00	71	34	0.00	64	20	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	62.4	25.7	0.79	43.3	20.6	3.03	60.6	29.5	0.54	54.1	18.5	1.15

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1977
FOR THE MONTH OF MAY

DAY	FAGOSA SPRINGS			WOLF CREEK 1E			DELNORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	70	37	0.00	48*	28*	0.00*	65	37	0.00	56	25	0.00
2	70	25	0.00	55*	24*	0.00*	72	33	0.00	64	18	0.00
3	67	25	0.00	50*	23*	0.00*	67	32	0.00	60	18	0.00
4	65	28	0.00	45*	25*	0.00*	62	34	0.00	57	22	0.00
5	66	25	0.00	48*	23*	0.00*	65	32	0.00	59	17	0.00
6	68	28	0.00	52*	29*	0.00*	69	38	0.00	60	24	0.00
7	69	29	0.00	56*	27*	0.00*	73	36	0.00	64	19	0.00
8	74	30	0.00	58*	27*	0.00*	75	36	0.00	65	20	0.00
9	75	33	0.00	58*	29*	0.00*	75	38	0.00	66	21	0.00
10	73	46	0.00	55*	31*	0.00*	72	40	0.00	56	32	0.00
11	69	19	0.00	53*	18*	0.00*	70	27	0.00	60	11	0.00
12	67	30	0.03	49*	26*	0.00*	66	35	0.14	58	32	0.30
13	63	33	0.66	43*	28*	0.30*	60	37	0.20	57	32	0.00
14	48	32	0.26	35*	27*	1.50*	52	36	0.00	45	29	0.45
15	56	36	0.10	45*	24*	0.50*	62	33	0.00	55	26	0.00
16	64	36	0.03	45*	25*	0.40*	62	34	0.00	55	25	0.00
17	64	31	0.00	47*	33*	0.12*	64	42	0.00	56	30	0.00
18	61	33	0.00	44*	28*	0.00*	61	37	0.00	55	18	0.00
19	59	24	0.00	40*	18*	0.00*	57	27	0.00	51	26	0.00
20	58	35	0.02	36*	27*	0.00*	53	36	0.00	56	16	0.00
21	65	23	0.00	49*	21*	0.08*	66	30	0.00	64	18	0.00
22	69	26	0.00	48*	23*	0.00*	65	32	0.00	65	27	0.00
23	74	29	0.00	57*	26*	0.00*	74	35	0.00	61	20	0.00
24	72	32	0.00	54*	28*	0.00*	71	37	0.00	52	30	0.00
25	64	40	0.02	44*	34*	0.00*	61	43	0.00	54	25	0.00
26	64	38	0.01	47*	28*	0.08*	64	37	0.00	62	19	0.00
27	68	29	0.00	50*	25*	0.04*	67	34	0.00	60	18	0.00
28	70	27	0.00	53*	26*	0.00*	70	35	0.00	65	20	0.00
29	70	30	0.00	56*	29*	0.00*	73	38	0.00	65	22	0.00
30	79	32	0.00	61*	32*	0.00*	78	41	0.00	69	25	0.00
31	85	33	0.00	50*	33*	0.00*	77	42	0.00	77	26	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	67.3	30.8	1.13	49.4	26.6	3.02	66.7	35.6	0.34	59.6	22.9	0.75

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1977
FOR THE MONTH OF JUNE

DAY	FAGOSA SPRINGS			WOLF CREEK 1E			DELMORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES
1	83	39	0.00	65*	35*	0.00*	77	47	0.00	77	28	0.00
2	82	40	0.00	63*	34*	0.00*	75	46	0.00	74	32	0.25
3	79	44	0.08	60*	36*	0.00*	72	48	0.00	70	36	0.00
4	80	41	0.00	60*	35*	0.16*	72	47	0.00	74	35	0.00
5	84	43	0.00	68*	34*	0.00*	80	46	0.00	76	32	0.00
6	82	42	0.02	64*	36*	0.00*	76	48	0.00	76	32	0.00
7	81	49	0.08	63*	37*	0.04*	75	49	0.00	73	37	0.00
8	79	41	0.00	63*	33*	0.16*	75	45	0.00	75	34	0.00
9	76	47	0.09	57*	40*	0.00*	69	52	0.35	72	37	0.15
10	76	40	0.00	62*	30*	0.18*	74	42	0.00	70	29	0.00
11	79	38	0.00	61*	32*	0.00*	73	44	0.00	70	28	0.00
12	81	41	0.00	66*	28*	0.00*	78	40	0.00	74	25	0.00
13	83	35	0.00	69*	32*	0.00*	81	44	0.00	76	27	0.00
14	84	33	0.00	67*	31*	0.00*	79	43	0.00	77	25	0.00
15	83	34	0.00	70*	31*	0.00*	82	43	0.00	78	24	0.00
16	84	32	0.00	72*	30*	0.00*	84	42	0.00	80	28	0.00
17	86	34	0.00	73*	39*	0.00*	85	51	0.00	84	28	0.00
18	83	34	0.00	68*	33*	0.00*	80	45	0.00	77	24	0.00
19	81	34	0.00	66*	31*	0.00*	78	43	0.00	74	24	0.00
20	79	55	0.00	61*	36*	0.00*	73	48	0.00	72	46	0.00
21	76	37	0.00	63*	30*	0.00*	75	42	0.00	72	30	0.00
22	80	41	0.00	65*	33*	0.00*	77	45	0.00	74	30	0.00
23	75	52	0.19	61*	37*	0.00*	73	49	0.05	69	44	0.25
24	72	38	0.02	55*	36*	0.39*	67	48	0.00	72	37	0.30
25	82	38	0.02	64*	31*	0.04*	76	43	0.00	76	34	0.00
26	81	41	0.05	65*	35*	0.04*	77	47	0.00	74	35	0.00
27	86	41	0.00	69*	34*	0.10*	81	46	0.00	77	32	0.05
28	87	42	0.00	68*	38*	0.00*	80	50	0.00	79	32	0.00
29	80	46	0.00	61*	38*	0.00*	73	50	0.28	77	39	0.00
30	87	41	0.11	67*	33*	0.00*	79	45	0.00	82	32	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	81.0	40.4	0.66	64.5	33.9	1.11	76.5	45.9	0.68	75.0	31.9	1.00

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OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1977
FOR THE MONTH OF JULY

DAY	FAGOSA SPRINGS			WOLF CREEK 1E			DELNORTE			PRECIP.			MAX TEMP			HERMIT 7ESE			PRECIP. INCHES
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	
1	86	46	0.00	67*	37*	0.22*	78	48	0.03	78	39	0.00	78	39	0.00	78	39	0.00	0.00
2	87	50	0.00	68*	40*	0.00*	79	51	0.00	79	39	0.00	78	39	0.00	78	39	0.00	0.00
3	88	43	0.00	67*	40*	0.00*	78	51	0.00	78	36	0.00	78	36	0.00	78	36	0.00	0.00
4	88	50	0.40	64*	45*	0.00*	75	56	0.24	75	42	0.00	70	42	0.20	70	42	0.20	0.20
5	74	54	0.34	58*	39*	0.49*	69	50	0.05	69	38	0.05	64	38	0.10	64	38	0.10	0.10
6	78	45	0.02	63*	39*	0.41*	74	50	0.22	74	35	0.22	73	35	0.00	73	35	0.00	0.00
7	84	41	0.00	67*	36*	0.02*	78	47	0.00	78	31	0.00	78	31	0.00	78	31	0.00	0.00
8	84	46	0.00	64*	37*	0.00*	75	48	0.00	75	32	0.00	74	32	0.00	74	32	0.00	0.00
9	82	47	0.00	66*	35*	0.00*	77	46	0.00	77	35	0.00	76	35	0.00	76	35	0.00	0.00
10	83	41	0.00	70*	35*	0.00*	81	46	0.00	81	30	0.00	79	30	0.00	79	30	0.00	0.00
11	83	45	0.00	65*	39*	0.00*	76	50	0.00	76	33	0.00	74	33	0.00	74	33	0.00	0.00
12	85	41	0.03	67*	36*	0.00*	78	47	0.00	78	30	0.00	79	30	0.00	79	30	0.00	0.00
13	83	54	0.08	68*	48*	0.04*	79	59	0.26	79	48	0.26	75	48	0.20	75	48	0.20	0.20
14	81	42	0.15	61*	38*	0.10*	72	49	0.00	72	35	0.00	73	35	0.00	73	35	0.00	0.00
15	74	49	0.12	67*	39*	0.18*	78	50	0.00	78	36	0.00	73	36	0.00	73	36	0.00	0.00
16	84	52	0.08	67*	38*	0.15*	78	49	0.00	78	40	0.00	81	40	0.00	81	40	0.00	0.00
17	82	51	0.05	71*	43*	0.10*	82	54	0.00	82	43	0.00	79	43	0.00	79	43	0.00	0.00
18	83	51	0.00	69*	40*	0.06*	80	51	0.14	80	38	0.14	77	38	0.30	77	38	0.30	0.30
19	83	52	0.02	68*	46*	0.00*	79	57	0.00	79	43	0.00	75	43	0.00	75	43	0.00	0.00
20	83	52	0.35	65*	43*	0.02*	76	54	0.00	76	40	0.00	73	40	0.00	73	40	0.00	0.00
21	76	54	0.26	57*	42*	0.43*	68	53	0.33	68	46	0.33	69	46	0.10	69	46	0.10	0.10
22	68	52	0.23	63*	39*	0.32*	74	50	0.05	74	43	0.05	70	43	1.00	70	43	1.00	1.00
23	77	54	0.01	63*	40*	0.28*	74	51	0.04	74	45	0.04	73	45	0.05	73	45	0.05	0.05
24	77	55	0.04	61*	40*	0.01*	72	51	0.22	72	46	0.22	73	46	0.15	73	46	0.15	0.15
25	77	51	0.59	61*	42*	0.05*	72	53	0.00	72	44	0.00	75	44	0.35	75	44	0.35	0.35
26	77	50	0.49	62*	41*	1.22*	73	52	0.03	73	40	0.03	72	40	0.70	72	40	0.70	0.70
27	81	46	0.04	66*	36*	0.60*	77	47	0.00	77	37	0.00	71	37	0.00	71	37	0.00	0.00
28	80	42	0.11	68*	36*	0.05*	79	47	0.00	79	37	0.00	72	37	0.00	72	37	0.00	0.00
29	83	45	0.00	69*	35*	0.14*	80	46	0.00	80	33	0.00	80	33	0.00	80	33	0.00	0.00
30	85	48	0.00	69*	42*	0.00*	80	53	0.00	80	41	0.00	78	41	0.00	78	41	0.00	0.00
31	86	41	0.00	71*	38*	0.00*	82	49	0.00	82	30	0.00	80	30	0.00	80	30	0.00	0.00

AVERAGE TEMPERATURES AND TOTAL PRECIPITATION

81.2 48.1 3.81 65.5 39.5 4.89 76.5 50.5 1.61 74.8 38.2 3.15

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1977
FOR THE MONTH OF AUGUST

DAY	FAGOSA SPRINGS			WOLF CREEK 1E			DELMORTE			HERMIT ZEESE			PRECIP, INCHES
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	
1	85	39	0.00	69*	36*	0.00*	79	46	0.00	80	31	0.00	0.00
2	87	39	0.00	73*	38*	0.00*	83	48	0.00	80	29	0.00	0.00
3	87	40	0.00	71*	38*	0.00*	81	48	0.00	79	32	0.00	0.00
4	85	40	0.00	69*	41*	0.00*	79	51	0.00	77	37	0.00	0.00
5	83	51	0.07	66*	43*	0.00*	76	53	0.19	76	40	0.40	0.40
6	85	48	0.00	73*	39*	0.09*	83	49	0.00	75	34	0.00	0.00
7	86	45	0.00	74*	42*	0.00*	84	52	0.00	80	40	0.00	0.00
8	85	50	0.00	69*	46*	0.00*	79	56	0.00	77	42	0.00	0.00
9	85	53	0.00	72*	42*	0.00*	82	52	0.03	80	38	0.00	0.00
10	83	54	0.02	65*	41*	0.00*	75	51	0.00	72	39	0.15	0.15
11	78	46	0.02	64*	38*	0.02*	74	48	0.00	74	35	0.00	0.00
12	78	52	0.03	66*	41*	0.03*	76	51	0.00	76	40	0.00	0.00
13	83	48	0.02	68*	41*	0.04*	78	51	0.00	74	35	0.00	0.00
14	81	45	0.00	67*	40*	0.03*	77	50	0.00	76	38	0.00	0.00
15	71	48	1.46	59*	43*	0.00*	69	53	0.30	67	47	0.70	0.70
16	75	56	0.02	64*	45*	1.85*	74	55	0.00	70	46	0.50	0.50
17	75	56	0.22	58*	46*	0.02*	68	56	0.25	67	50	0.00	0.00
18	72	58	0.71	61*	46*	0.28*	71	56	0.36	74	50	0.00	0.00
19	78	48	0.02	60*	39*	0.90*	70	49	0.05	67	38	0.05	0.05
20	78	52	0.45	62*	39*	0.02*	72	49	0.50	65	37	0.25	0.25
21	78	46	0.00	62*	37*	0.57*	72	47	0.00	72	35	0.20	0.20
22	77	49	0.34	66*	39*	0.00*	76	49	0.00	75	40	0.00	0.00
23	79	44	0.01	65*	40*	0.43*	75	50	0.13	72	37	0.00	0.00
24	78	48	0.04	67*	41*	0.01*	77	51	0.00	70	37	0.10	0.10
25	77	51	0.11	67*	40*	0.05*	77	50	0.00	72	41	0.00	0.00
26	78	45	0.00	68*	37*	0.14*	78	47	0.00	73	36	0.00	0.00
27	77	54	0.00	65*	46*	0.00*	75	56	0.00	70	45	0.00	0.00
28	74	38	0.00	61*	31*	0.00*	71	41	0.00	74	26	0.00	0.00
29	78	36	0.00	67*	33*	0.00*	77	43	0.00	74	28	0.00	0.00
30	77	41	0.00	67*	35*	0.00*	77	45	0.00	72	28	0.00	0.00
31	81	40	0.00	68*	38*	0.00*	78*	48*	0.00	73	31	0.00	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION													
	79.8	47.1	3.54	66.2	40.0	4.48	76.2	50.0	1.81	73.5	37.5	2.35	

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1977
FOR THE MONTH OF SEPTEMBER

DAY	FAGOSA SPRINGS			WOLF CREEK JE			DELNORTE			HERMIT 7ESE			PRECIP, INCHES
	MAX DEG. F	MIN DEG. F	PRECIP, INCHES	MAX DEG. F	MIN DEG. F	PRECIP, INCHES	MAX DEG. F	MIN DEG. F	PRECIP, INCHES	MAX DEG. F	MIN DEG. F	PRECIP, INCHES	
1	80	46	0.00	64	39	0.00	79	50	0.00	77	45	0.00	
2	75	49	0.00	64	41	0.00	79	49	0.00	61	45	0.00	
3	76	46	0.26	59	39	0.10	75	45	0.10	70	42	0.35	
4	78	44	0.05	59	36	0.20	77	45	0.03	75	34	0.05	
5	80	42	0.00	59	38	0.00	75	45	0.00	71	31	0.00	
6	84	45	0.01	61	39	0.00	79	46	0.00	78	34	0.00	
7	83	42	0.04	68	36	0.23	80	47	0.00	79	32	0.00	
8	85	41	0.00	69	41	0.00	83	48	0.00	77	32	0.00	
9	82	40	0.00	65	38	0.00	75	46	0.00	73	39	0.00	
10	73	42	0.02	66	39	0.00	72	49	0.09	65	32	0.00	
11	63	53	0.44	69	40	0.00	61	48	0.05	56	39	0.30	
12	61	51	0.15	68	40	1.30	62	49	0.10	58	41	0.00	
13	68	36	0.12	50	28	0.00	62	38	0.04	63	25	0.00	
14	71	35	0.00	55	31	0.67	68	36	0.18	69	25	0.00	
15	70	45	0.02	56	34	0.00	68	44	0.00	61	37	0.35	
16	68	40	0.00	53	38	0.00	65	38	0.00	58	27	0.00	
17	68	40	0.00	55	41	0.00	66	39	0.00	61	28	0.00	
18	70	27	0.00	55	28	0.00	69	35	0.00	69	20	0.00	
19	74	30	0.00	55	28	0.00	73	36	0.00	68	21	0.00	
20	72	38	0.00	57	40	0.00	71	44	0.00	67	27	0.00	
21	69	33	0.00	55	33	0.00	68	40	0.00	66	23	0.00	
22	72	27	0.00	58	39	0.00	71	34	0.00	66	16	0.10	
23	67	48	0.40	68	38	0.17	64	43	0.16	62	32	0.00	
24	69	27	0.00	66	35	0.00	69	32	0.00	67	20	0.00	
25	73	31	0.00	61	38	0.00	73	39	0.00	72	22	0.00	
26	71	32	0.00	56	46	0.00	70	39	0.00	66	23	0.00	
27	71	36	0.00	57	36	0.00	71	40	0.00	66	25	0.00	
28	68	50	0.15	55	32	0.00	73	46	0.00	70	37	0.00	
29	71	35	0.00	59	28	0.00	76	41	0.00	70	26	0.00	
30	69	37	0.00	58	40	0.00	68	49	0.00	64	29	0.00	
AVERAGE	72.7	39.7	1.66	60.0	36.6	2.67	71.4	42.7	0.75	67.5	30.3	1.15	

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1978
FOR THE MONTH OF APRIL

DAY	FAGOSA SPRINGS			WOLF CREEK 1E			DELMORTE			HERMIT 7E8E		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	08	08	0.008	48	21	0.36	58	38	0.09	44	15	0.30
2	08	08	0.008	35	22	0.85	57	26	0.00	46	5	0.00
3	08	08	0.008	30	19	0.23	62	30	0.00	47	10	0.35
4	08	08	0.008	40	19	0.00	69	25	0.00	45	4	0.00
5	08	08	0.008	42	18	0.08	61	30	0.00	46	11	0.00
6	08	08	0.008	42	16	0.00	68	24	0.00	50	12	0.00
7	08	08	0.008	43	15	0.00	70	29	0.00	47	11	0.00
8	08	08	0.008	44	14	0.00	68	29	0.00	47	13	0.00
9	08	08	0.008	46	14	0.30	58	32	0.11	44	12	0.00
10	08	08	0.008	48	12	0.05	54	23	0.00	48	8	0.00
11	08	08	0.008	50	14	0.00	69	28	0.00	50	8	0.00
12	08	08	0.008	50	16	0.00	64	34	0.00	54	12	0.00
13	08	08	0.008	48	14	0.00	64	31	0.00	48	12	0.00
14	08	08	0.008	52	16	0.00	61	27	0.00	48	13	0.00
15	08	08	0.008	50	16	0.00	58	30	0.00	46	8	0.00
16	08	08	0.008	48	14	0.00	57	27	0.00	44	5	0.00
17	08	08	0.008	46	6	0.00	48	29	0.00	50	2	0.00
18	08	08	0.008	48	8	0.00	57	20	0.00	45	5	0.00
19	08	08	0.008	50	10	0.00	62	22	0.00	50	9	0.00
20	08	08	0.008	48	5	0.00	68	27	0.00	56	12	0.00
21	08	08	0.008	46	3	0.00	56	29	0.00	48	12	0.00
22	08	08	0.008	43	5	0.00	52	20	0.00	45	7	0.00
23	08	08	0.008	47	4	0.00	69	25	0.00	50	10	0.00
24	08	08	0.008	48	3	0.00	70	31	0.00	60	15	0.00
25	08	08	0.008	52	28	0.00	67	35	0.00	62	25	0.00
26	08	08	0.008	48	18	0.00	68	32	0.00	60	21	0.00
27	08	08	0.008	50	19	0.00	69	30	0.00	50	31	0.00
28	08	08	0.008	51	20	0.04	63	28	0.00	54	14	0.00
29	08	08	0.008	508	288	0.00	65	30	0.00	54	17	0.00
30	08	08	0.008	488	238	0.00	52	37	0.07	50	28	0.40
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	0.0	0.0	0.00	46.4	14.7	1.91	62.2	28.6	0.27	49.6	12.2	1.05

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1978
FOR THE MONTH OF MAY

DAY	FAGOSA SPRINGS			WOLF CREEK 1E			DELMORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	51	34	0.24	44	23	1.20	50	32	0.05	48	26	0.50
2	40	33	0.67	43	20	0.50	34	29	1.03	38	26	0.00
3	56	35	0.02	32	23	0.00	53	30	0.08	46	20	0.85
4	55	28	0.00	45	21	0.60	52	31	0.55	40	23	0.00
5	46	30	0.23	44	16	1.50	43	27	0.30	36	20	0.75
6	38	28	0.51	38	14	0.60	42	26	0.17	40	20	0.10
7	45	26	0.11	37	12	0.50	45	24	0.00	38	9	0.00
8	53	25	0.00	39	13	0.00	59	26	0.00	42	15	0.00
9	63	23	0.00	49	15	0.00	63	27	0.00	58	15	0.00
10	67	27	0.00	52	17	0.60	67	33	0.00	60	21	0.00
11	65	30	0.00	55	15	0.00	66	36	0.00	58	22	0.00
12	71	31	0.00	54	20	0.00	68	42	0.00	57	35	0.00
13	74	26	0.00	55	23	0.00	74	32	0.00	67	18	0.00
14	78	30	0.00	60	21	0.00	77	38	0.00	70	21	0.00
15	78	36	0.00	62	26	0.00	77	44	0.00	70	25	0.00
16	74	30	0.00	62	22	0.00	77	40	0.00	65	23	0.00
17	71	28	0.00	62	21	0.00	70	41	0.00	58	31	0.00
18	64	20	0.00	57	10	0.00	68	29	0.00	60	14	0.00
19	73	25	0.00	55	19	0.00	71	33	0.00	65	16	0.00
20	68	35	0.09	58	24	0.10	65	40	0.01	63	25	0.00
21	64	36	0.27	53	28	0.50	59	42	0.01	54	34	0.10
22	72	31	0.00	49	28	0.00	73	33	0.00	65	24	0.00
23	74	34	0.00	59	23	0.00	73	38	0.00	66	23	0.10
24	67	30	0.00	59	28	0.00	66	37	0.00	59	24	0.00
25	67	28	0.00	54	20	0.00	63	34	0.00	59	19	0.00
26	69	34	0.00	55	24	0.00	72	39	0.00	63	21	0.00
27	67	36	0.01	52	32	0.00	61	44	0.00	54	31	0.00
28	66	26	0.00	51	23	0.00	64	37	0.00	54	19	0.00
29	71	27	0.00	52	21	0.00	70	33	0.00	67	17	0.00
30	76	27	0.00	57	30	0.00	74	37	0.00	68	29	0.00
31	75	36	0.00	60	28	0.00	72	37	0.00	68	25	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	64.5	29.8	2.15	52.0	21.3	5.50	63.7	34.5	2.20	56.6	22.3	2.40

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1978
FOR THE MONTH OF JUNE

DAY	FAGOSA SPRINGS			WOLF CREEK 1E			DELNORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	74	30	0.00	50	30	0.00	72	37	0.00	68	20	0.00
2	74	33	0.00	54	27	0.00	73	37	0.00	65	21	0.00
3	74	32	0.00	49	28	0.00	73	39	0.00	67	22	0.00
4	74	31	0.00	55	29	0.00	74	42	0.00	68	23	0.00
5	73	36	0.01	52	27	0.00	70	42	0.00	63	29	0.00
6	68	35	0.06	53	28	0.00	66	39	0.00	65	23	0.00
7	71	32	0.05	58	28	0.00	73	38	0.00	68	28	0.00
8	75	37	0.00	58	31	0.00	71	39	0.00	68	26	0.00
9	80	35	0.00	59	33	0.00	78	47	0.00	72	25	0.00
10	80	36	0.00	62	31	0.00	78	44	0.00	74	28	0.00
11	78	34	0.00	58	26	0.00	78	44	0.00	74	32	0.00
12	81	34	0.00	63	22	0.00	80	44	0.00	75	28	0.00
13	80	40	0.00	65	36	0.00	79	50	0.00	75	32	0.00
14	81	40	0.00	67	35	0.00	79	46	0.00	75	30	0.00
15	81	38	0.00	68	31	0.00	80	44	0.00	75	30	0.00
16	81	33	0.00	61	25	0.00	79	42	0.00	74	25	0.00
17	78	31	0.00	68	30	0.00	80	43	0.00	73	26	0.00
18	81	31	0.00	68	33	0.00	78	41	0.00	75	23	0.00
19	80	37	0.00	68	31	0.00	79	44	0.00	75	29	0.00
20	82	30	0.00	67	35	0.00	82	41	0.00	78	25	0.00
21	83	35	0.00	68	31	0.00	81	44	0.00	80	30	0.00
22	84	36	0.00	69	33	0.00	80	46	0.00	79	29	0.00
23	84	38	0.00	68	30	0.00	83	47	0.00	80	31	0.00
24	84	39	0.00	69	32	0.00	83	49	0.00	80	33	0.00
25	83	42	0.00	70	35	0.00	78	50	0.00	76	36	0.00
26	81	34	0.00	68	31	0.05	78	45	0.00	75	25	0.00
27	78	48	0.01	63	35	0.00	72	56	0.00	74	36	0.00
28	75	50	0.00	61	34	0.00	73	51	0.00	74	38	0.00
29	73	54	0.86	58	38	0.11	65	51	0.50	60	46	0.35
30	76	40	0.02	48	29	0.30	73	35	0.35	70	35	0.05
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION												
	78.2	36.7	1.01	61.5	30.8	0.46	76.3	43.9	0.85	72.5	28.8	0.60

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1978
FOR THE MONTH OF JULY

DAY	FAGUSA SPRINGS			WOLF CREEK 1E			DELNORTE			HERMIT 7ESE			PRECIP.
	MAX TEMP. DEG. F	MIN TEMP. DEG. F	PRECIP. INCHES	MAX TEMP. DEG. F	MIN TEMP. DEG. F	PRECIP. INCHES	MAX TEMP. DEG. F	MIN TEMP. DEG. F	PRECIP. INCHES	MAX TEMP. DEG. F	MIN TEMP. DEG. F	PRECIP. INCHES	
1	81	40	0.00	60*	31*	0.00*	75	45	0.00	75	30	0.00	0.00
2	83	37	0.00	63*	29*	0.00*	80	46	0.00	75	34	0.00	0.00
3	83	37	0.00	60	35*	0.00	81	47	0.00	75	27	0.00	0.00
4	83	40	0.00	65	31*	0.00	79	45	0.00	75	26	0.00	0.00
5	80	36	0.00	68	28*	0.00	79	42	0.00	75	25	0.00	0.00
6	80	32	0.00	64	25*	0.00	80	42	0.00	76	23	0.00	0.00
7	84	33	0.00	64	25*	0.00	81	42	0.00	80	24	0.00	0.00
8	82	45	0.00	70	35*	0.00	78	50	0.00	75	31	0.00	0.00
9	85	43	0.00	68	32*	0.00	77	51	0.05	70	35	0.25	0.25
10	81	55	0.00	61	40*	0.02	75	53	0.17	74	44	0.15	0.15
11	79	50	0.05	61	37*	0.17	73	51	0.05	71	41	0.10	0.10
12	82	47	0.00	64	37*	0.11	73	49	0.04	74	40	0.10	0.10
13	87	43	0.00	62	34*	0.42	80	47	0.01	79	37	0.00	0.00
14	89	45	0.00	67	35*	0.01	83	57	0.00	82	35	0.00	0.00
15	85	46	0.00	74	36*	0.00	77	52	0.00	78	40	0.00	0.00
16	86	53	0.00	71	42*	0.00	74	55	0.10	80	45	0.40	0.40
17	84	47	0.00	72	29*	0.00	69	48	0.02	74	40	0.35	0.35
18	83	45	0.00	74	35*	0.05	77	48	0.00	75	36	0.00	0.00
19	87	47	0.00	67	37*	0.10	80	53	0.01	75	39	0.40	0.40
20	84	51	0.00	68	40*	0.00	74	51	0.27	73	38	0.20	0.20
21	85	47	0.00	71	37*	0.00	73	47	0.00	70	39	0.00	0.00
22	84	42	0.00	72	31*	0.00	75	45	0.25	76	30	0.00	0.00
23	82	48	0.07	71	38*	0.08	75	47	0.00	77	36	0.00	0.00
24	80	45	0.05	74	36*	0.00	79	48	0.00	76	38	0.00	0.00
25	82	45	0.00	73	36*	0.00	83	50	0.00	81	38	0.00	0.00
26	86	41	0.41	66	31*	0.03	82	51	0.00	79	33	0.00	0.00
27	86	46	0.00	65	36*	0.00	81	50	0.00	80	35	0.00	0.00
28	87	47	0.00	72	35*	0.01	79	51	0.00	80	36	0.00	0.00
29	89	44	0.00	75	36*	0.00	82	50	0.20	78	34	0.00	0.00
30	84	47	0.03	74	34*	0.00	78	50	0.00	78	36	0.00	0.00
31	84	48	0.00	69	33*	0.00	77	50	0.00	74	36	0.20	0.20
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	83.8	44.3	0.61	68.2	34.1	1.00	77.7	48.8	1.17	76.1	34.9	2.15	

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1978
FOR THE MONTH OF AUGUST

DAY	FAGOSA SPRINGS			WOLF CREEK 1E			DELMORTE			HERMIT 7E8E		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	80	39	0.00	75	32*	0.04	75	45	0.06	72	34	0.00
2	86	47	0.01	74	32*	0.00	77	51	0.04	76	39	0.00
3	80	37	0.00	70	31*	0.01	75	45	0.00	75	32	0.00
4	80	47	0.00	71	30*	0.00	74	43	0.01	74	32	0.00
5	85	38	0.00	73	29*	0.00	76	41	0.00	79	30	0.00
6	86	42	0.00	74	32*	0.00	80	45	0.00	79	33	0.00
7	80	45	0.07	73	35*	0.00	75	48	0.10	77	37	0.00
8	83	36	0.00	75	30*	0.00	75	44	0.00	78	30	0.00
9	82	42	0.00	73	35*	0.00	74	46	0.01	76	37	0.00
10	82	41	0.03	76	32*	0.03	75	45	0.00	74	34	0.00
11	85	40	0.01	71	30*	0.01	81	46	0.00	77	32	0.00
12	85	47	0.00	69	34*	0.00	75	49	0.01	76	36	0.25
13	83	42	0.00	72	31*	0.00	78	48	0.00	72	35	0.00
14	77	45	0.00	68	37*	0.03	73	48	0.00	74	30	0.00
15	78	35	0.00	71	25*	0.00	74	37	0.00	76	24	0.00
16	79	33	0.00	69	27*	0.00	78	43	0.00	75	25	0.00
17	78	38	0.00	73	37*	0.00	79	51	0.00	75	29	0.00
18	77	44	0.00	64	31*	0.00	77	50	0.00	71	30	0.00
19	77	36	0.00	70	31*	0.00	77	42	0.19	70	28	0.00
20	80	49	0.00	68	39*	0.04	74	46	0.00	75	37	0.00
21	79	42	0.01	69	30*	0.00	75	46	0.00	77	32	0.00
22	75	51	0.07	71	39*	0.00	75	51	0.02	67	44	0.80
23	78	41	0.03	67	36*	0.04	79	44	0.00	71	33	0.15
24	79	42	0.00	69	35*	0.00	75	49	0.00	70	35	0.15
25	79	44	0.00	70	40*	0.00	74	50	0.11	72	42	0.00
26	77	39	0.00	69	33*	0.00	75	43	0.00	72	31	0.00
27	78	33	0.00	67	28*	0.00	78	43	0.00	76	26	0.00
28	82	31	0.00	70	25*	0.00	77	42	0.00	71	23	0.00
29	80	37	0.05	66	30*	0.00	67	44	0.02	74	28	0.00
30	78	28	0.00	67	26*	0.01	73	39	0.00	70	25	0.00
31	79	40	0.01	68	30*	0.00	76	43	0.00	72	30	0.15
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	80.2	40.4	0.29	70.4	32.0	0.21	75.7	45.4	0.57	74.0	32.0	1.35

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1978
FOR THE MONTH OF SEPTEMBER

DAY	FAGOSA SPRINGS			WOLF CREEK 1E			DELNORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	79	41	0.00	70	27*	0.00	75	39	0.00	68	27	0.00
2	82	37	0.00	71	29*	0.00	78	43	0.00	75	27	0.00
3	85	39	0.00	70	30*	0.00	80	44	0.00	77	30	0.00
4	86	41	0.00	69	32*	0.00	81	45	0.00	80	30	0.00
5	86	41	0.00	72	32*	0.00	82	47	0.00	82	31	0.00
6	83	42	0.00	71	31*	0.03	81	47	0.00	83	34	0.00
7	77	51	0.08	70	38*	0.00	74	49	0.11	72	37	0.00
8	74	34	0.00	71	25*	0.00	74	39	0.00	73	24	0.00
9	69	35	0.00	69	31*	0.00	78	44	0.00	75	28	0.00
10	77	41	0.00	69	32*	0.00	72	45	0.00	72	28	0.00
11	74	40	0.00	70	36*	0.00	70	54	0.00	70	36	0.00
12	69	33	0.00	65*	32*	0.00	70	39	0.00	65	26	0.00
13	69	35	0.00	63*	30*	0.00	70	37	0.00	65	25	0.00
14	72	28	0.00	65*	21*	0.00	75	38	0.00	68	21	0.00
15	76	38	0.00	66*	27*	0.00	78	44	0.00	72	27	0.00
16	73	31	0.00	69	25*	0.00	73	38	0.00	71	22	0.00
17	70	45	0.51	70	36*	0.00	67	46	0.13	65	38	0.05
18	64	35	0.00	44	30*	0.07	67	38	0.00	58	32	0.00
19	61	36	0.22	43	34*	0.32	68	41	0.00	55	36	0.15
20	58	26	0.00	33	18*	1.00	62	30	0.00	53	16	0.00
21	68	19	0.00	38	11*	0.00	64	25	0.00	68	18	0.00
22	72	31	0.00	51	20*	0.00	71	32	0.00	65	23	0.00
23	75	33	0.00	64	25*	0.00	72	37	0.00	73	23	0.00
24	67	46	0.00	67	40*	0.00	64	48	0.00	68	34	0.00
25	62	45	0.41	46	29*	0.00	59	42	0.40	63	33	0.05
26	74	37	0.00	33	31*	1.80	72	39	0.00	72	36	0.00
27	75	34	0.00	60	24*	0.00	74	39	0.00	70	23	0.00
28	75	32	0.00	69	24*	0.00	76	39	0.00	73	22	0.00
29	78	33	0.00	65	26*	0.00	77	42	0.00	72	23	0.00
30	77	32	0.00	66	25*	0.00	71	39	0.00	74	20	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION												
	73.6	36.4	1.22	61.6	28.4	3.22	72.5	40.9	0.64	69.9	27.2	0.25

**ORIGINAL PAGE IS
OF POOR QUALITY**

DAY	PASOSA SPRINGS			WOLF CREEK 1E			DELNORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	40	18	0.08	33	-5	0.63	38	14	0.00	25	-16	0.05
2	40	5	0.00	24	2	0.00	40	7	0.00	26	-25	0.00
3	43	16	0.00	29	10	0.00	44	16	0.00	28	-15	0.00
4	43	7	0.00	28	11	0.00	52	11	0.00	26	-21	0.00
5	53	14	0.00	34	19	0.00	60	20	0.00	30	-9	0.00
6	63	19	0.00	44	31	0.00	64	25	0.00	36	-2	0.00
7	60	6	0.00	48	30	0.00	64	27	0.00	34	-5	0.00
8	64	12	0.00	40*	18	0.00	67	27	0.00	36	-2	0.00
9	59	23	0.01	50	21	0.00	60	29	0.01	31	-6	0.00
10	45	29	0.59	29*	4	0.44	51	31	0.00	32	0	0.10
11	35	25	0.27	21	2	1.30	43	31	0.00	30	-2	0.00
12	41	9	0.00	20	2	1.19	46	20	0.00	27	-6	0.00
13	48	9	0.00	25	6	0.87	67	14	0.00	34	0	0.00
14	61	19	0.00	26	15	0.00	68	25	0.00	38	3	0.00
15	67	22	0.00	49	21	0.00	72	30	0.00	40	8	0.00
16	69	24	0.00	52	39	0.00	75	32	0.00	39	8	0.00
17	66	53	0.00	54	34	0.00	70	38	0.00	40	10	0.00
18	67	27	0.00	48	31	0.00	65	34	0.00	42	10	0.00
19	64	25	0.00	48	16	0.28	60	40	0.00	40	14	0.00
20	59	18	0.00	27	17	0.19	62	23	0.00	42	5	0.00
21	66	23	0.00	46	19	0.00	69	28	0.00	40	5	0.00
22	66	30	0.00	47	19	0.00	70	32	0.00	44	12	0.00
23	65	30	0.00	48	34	0.00	68	37	0.00	46	13	0.00
24	64	29	0.00	48	32	0.00	66	35	0.00	42	10	0.00
25	63	29	0.00	42	31	0.00	63	39	0.00	40	12	0.00
26	61	32	0.00	42	22	0.00	67	30	0.00	40	12	0.00
27	65	29	0.00	45	22	0.15	65	32	0.00	46	15	0.00
28	65	31	0.00	47	19	0.00	66	37	0.00	48	18	0.00
29	65	31	0.00	47	22	0.00	62	31	0.00	46	15	0.00
30	65	27	0.01	43	22	0.00	65	27	0.00	47	15	0.00
AVERAGE	57.7	21.7	0.94	39.5	18.9	5.05	61.0	27.4	0.01	37.2	2.5	0.15

ORIGINAL PAGE 19
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1979
FOR THE MONTH OF MAY

DAY	FABOSA SPRINGS			WOLF CREEK 1E			DELMORTE			HERMIT 7E9E		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	64	32	0.10	35	21	0.00	64	36	0.03	45	11	0.20
2	63	30	0.00	34	20	0.00	60	36	0.00	44	20	0.00
3	55	27	0.04	33	22	0.00	58	26	0.00	37	19	0.00
4	64	28	0.28	38	15	0.00	65	32	0.15	47	12	0.00
5	68	27	0.00	47	26	0.00	72	35	0.00	56	19	0.00
6	70	30	0.00	48	31	0.00	67	47	0.00	60	31	0.00
7	69	37	0.00	51	28	0.00	64	44	0.00	54	32	0.00
8	63	35	0.18	46	20	2.72	57	38	0.04	48	28	0.40
9	40	30	0.26	43	17	0.64	49	26	0.00	43	20	0.00
10	44	28	0.23	30	7	0.63	52	27	0.07	41	14	0.00
11	57	17	0.07	29	1	0.28	57	22	0.00	45	13	0.00
12	65	25	0.00	38	13	0.00	61	21	0.00	50	20	0.00
13	67	25	0.00	48	13	0.00	70	32	0.00	59	18	0.00
14	71	28	0.00	50	13	0.00	74	35	0.00	64	21	0.00
15	71	30	0.00	53*	13	0.00	73	35	0.00	67	22	0.00
16	62	35	0.00	50	16	0.00	62	38	0.00	60	27	0.00
17	60	34	0.00	47*	29	0.00	67	37	0.00	62	30	0.00
18	71	30	0.00	50*	28	0.00	75	34	0.00	67	25	0.00
19	73	32	0.00	54*	33	0.00	71	42	0.02	66	26	0.00
20	69	34	0.18	52*	34	0.51	67	37	0.38	65	27	0.00
21	64	37	0.09	54*	30	0.29	65	35	0.10	64	33	0.20
22	75	36	0.00	56	31	0.35	70	38	0.00	66	28	0.00
23	74	36	0.00	59	33	0.00	72	40	0.03	67	28	0.00
24	64	41	0.01	54	36	0.07	67	39	0.05	62	30	0.00
25	67	35	0.00	49	31	0.25	68	40	0.00	66	28	0.00
26	64	41	0.35	53	32	0.76	68	43	0.99	65	37	0.30
27	69	36	0.03	53	32	0.16	70	45	0.00	63	38	0.45
28	69	36	0.26	55	31	0.10	72	41	0.00	65	30	0.00
29	70	42	0.03	54	33	0.00	70	46	0.00	65	32	0.00
30	68	35	0.01	53	33	0.00	65	40	0.00	60	33	0.25
31	66	40	0.02	45	33	0.45	65	39	0.00	58	30	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	65.0	32.5	2.14	47.1	24.4	7.21	65.7	36.3	1.86	57.5	25.2	1.80

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OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1979
FOR THE MONTH OF JUNE

DAY	FAGOSA SPRINGS			WOLF CREEK 1E			DELNORTE			HERMIT 7ESE			PRECIP.
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	
1	66	35	0.00	48	27	0.00	64	35	0.00	61	26	0.00	0.00
2	69	35	0.00	49	30	0.00	64	39	0.11	64	32	0.00	0.00
3	70	37	0.03	53	29	0.41	70	41	0.00	66	30	0.00	0.00
4	71	36	0.00	53	32	0.00	71	43	0.00	65	30	0.00	0.00
5	75	43	0.00	57	34	0.30	72	46	0.00	70	31	0.00	0.00
6	77	37	0.01	60	36	0.00	77	44	0.00	71	31	0.00	0.00
7	76	38	0.00	61	35	0.00	72	44	0.00	65	33	0.00	0.00
8	68	43	0.21	53	33	0.32	59	45	0.10	63	36	0.20	0.20
9	60	35	0.09	38	24	0.84	56	33	0.00	58	29	0.00	0.00
10	70	29	0.00	45	24	0.00	66	31	0.00	68	19	0.00	0.00
11	75	33	0.00	55	31	0.00	73	40	0.00	73	26	0.00	0.00
12	81	36	0.00	63	35	0.00	79	45	0.00	74	31	0.00	0.00
13	80	36	0.00	66	37	0.00	81	47	0.00	75	30	0.00	0.00
14	81	38	0.00	67	37	0.00	78	47	0.00	72	31	0.00	0.00
15	81	41	0.00	63	37	0.11	76	46	0.00	70	25	0.00	0.00
16	76	33	0.00	63	40	0.00	77	43	0.00	70	25	0.00	0.00
17	76	32	0.00	57	36	0.45	71	41	0.00	65	25	0.00	0.00
18	71	31	0.00	51	25	0.00	69	47	0.00	65	34	0.00	0.00
19	68	30	0.04	47	27	0.00	67	36	0.00	61	26	0.00	0.00
20	74	29	0.00	58	35	0.00	75	38	0.00	70	24	0.00	0.00
21	78	31	0.00	63	37	0.00	79	40	0.00	74	24	0.00	0.00
22	81	37	0.00	65	36	0.00	81	45	0.00	75	27	0.00	0.00
23	81	32	0.00	67	36	0.00	78	43	0.00	76	26	0.00	0.00
24	80	40	0.00	63	36	0.00	78	44	0.30	76	30	0.00	0.00
25	81	37	0.02	63	40	0.00	78	42	0.00	75	31	0.00	0.00
26	83	39	0.00	68	40	0.00	77	44	0.02	80	31	0.00	0.00
27	85	40	0.00	70	40	0.00	83	47	0.00	80	31	0.00	0.00
28	85	37	0.00	72	42	0.00	81	48	0.00	81	32	0.00	0.00
29	86	41	0.00	70	41	0.00	78	47	0.00	78	31	0.00	0.00
30	79	45	0.00	71	40	0.00	75	50	0.00	72	36	0.05	0.05
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	76.1	36.2	0.40	59.4	34.4	2.43	73.5	42.7	0.53	70.4	29.1	0.25	0.25

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1979
FOR THE MONTH OF JULY

DAY	PAUOSA SPRINGS			WOLF CREEK 1E			DELNORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	79	42	0.03	62	38	0.00	72	52	0.00	70	38	0.05
2	77	40	0.01	64	37	0.00	76	45	0.00	71	33	0.15
3	71	43	0.02	65	39	0.00	75	48	0.00	67	35	0.15
4	75	36	0.00	62	38	0.05	76	43	0.00	67	32	0.00
5	80	35	0.00	62	38	0.00	76	44	0.00	71	30	0.00
6	80	41	0.10	65	40	0.00	74	47	0.10	70	30	0.10
7	82	40	0.00	64	39	0.00	78	44	0.00	75	33	0.00
8	82	42	0.00	63	39	0.00	81	48	0.00	77	31	0.00
9	85	35	0.00	65	37	0.00	81	46	0.00	78	29	0.00
10	87	37	0.00	71	41	0.00	83	48	0.00	81	30	0.00
11	87	36	0.00	71	42	0.00	83	46	0.00	81	31	0.00
12	87	44	0.00	72	42	0.00	83	49	0.00	82	32	0.00
13	88	40	0.00	74	44	0.05	84	50	0.00	81	33	0.00
14	88	41	0.00	65	41	0.03	83	49	0.02	85	33	0.00
15	87	46	0.00	68	39	0.06	79	52	0.00	80	36	0.00
16	83	50	0.00	66	35	0.07	75	51	0.00	75	45	0.05
17	81	53	0.00	66	40	0.00	78	51	0.15	72	42	0.25
18	76	43	0.03	67	41	0.00	72	46	0.00	64	37	0.20
19	79	38	0.07	68	43	0.00	72	46	0.00	72	34	0.00
20	79	50	0.07	65	41	0.00	75	46	0.00	72	41	0.00
21	79	50	0.00	64	44	0.01	76	50	0.10	75	35	0.00
22	80	50	0.00	63	40	0.07	75	50	0.04	76	41	0.00
23	81	38	0.00	64	39	0.00	77	48	0.00	78	32	0.00
24	85	41	0.00	68	41	0.00	80	51	0.20	82	35	0.00
25	85	43	0.00	71	42	0.00	76	48	0.20	80	35	0.00
26	86	42	0.00	70	41	0.00	77	48	0.00	77	35	0.00
27	88	45	0.00	70	43	0.00	75	50	0.00	79	36	0.00
28	85	55	0.00	71	40	0.00	74	51	0.10	78	38	0.00
29	85	56	0.13	72	44	3.10	72	52	0.17	78	38	0.00
30	85	44	0.00	70	42	0.02	80	47	0.00	79	33	0.00
31	85	45	0.00	68	37	0.01	75	45	0.00	76	36	0.00
AVERAGE	82.5	43.3	0.46	67.0	40.2	3.47	77.2	48.1	1.08	75.8	34.8	0.95

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1979
FOR THE MONTH OF AUGUST

DAY	PAGOSA SPRINGS			WOLF CREEK 1E			DELNORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	84	45	0.00	65	39	0.00	75	45	0.00	81	30	0.00
2	85	40	0.00	68	37	0.00	79	48	0.00	81	32	0.00
3	86	45	0.00	69	35	0.00	79	46	0.00	78	32	0.00
4	89	45	0.00	68	34	0.00	82	47	0.00	82	31	0.00
5	90	46	0.00	67	35	0.00	81	50	0.00	82	35	0.00
6	86	47	0.00	70	36	0.00	82	53	0.00	81	36	0.00
7	85	43	0.03	69	36	0.00	81	50	0.00	80	35	0.00
8	83	47	0.01	68	33	0.00	80	52	0.00	77	42	0.00
9	80	45	0.00	65	32	0.33	76	50	0.08	77	36	0.20
10	83	47	0.01	63	34	0.11	75	49	0.22	79	40	0.15
11	80	53	0.88	62	33	0.17	74	47	0.00	75	39	0.00
12	78	54	0.08	63	33	1.33	73	55	0.02	73	47	0.15
13	78	51	0.12	61	34	0.78	70	47	0.03	70	40	0.50
14	75	52	0.13	61	31	0.32	70	52	0.51	61	40	0.30
15	71	51	1.13	60	33	0.44	61	50	0.44	62	45	0.25
16	70	51	0.26	58	33	0.60	67	50	0.03	64	44	0.00
17	68	45	0.00	53	36	0.11	65	47	0.01	64	35	0.00
18	69	41	0.00	58	34	0.00	60	46	0.08	55	36	0.30
19	69	40	0.00	57	33	0.00	67	39	0.00	59	29	0.00
20	68	44	0.00	55	32	0.00	65	43	0.00	60	34	0.15
21	74	35	0.00	52	30	0.00	69	39	0.00	70	27	0.00
22	77	45	0.00	56	31	0.00	73	43	0.00	71	31	0.00
23	79	40	0.00	67	35	0.00	74	44	0.00	70	32	0.00
24	79	35	0.00	66	35	0.00	75	42	0.00	71	50	0.00
25	79	36	0.06	67	38	0.00	72	42	0.00	70	28	0.00
26	78	47	0.06	58	38	0.10	68	50	0.23	70	38	0.05
27	78	40	0.03	57	30	0.00	72	44	0.00	69	30	0.00
28	79	38	0.00	56	32	0.00	79	43	0.00	72	29	0.00
29	81	36	0.00	64	32	0.00	75	44	0.00	71	27	0.00
30	78	49	0.09	61	32	0.00	70	49	0.10	71	41	0.00
31	76	43	0.00	59	34	0.00	75	43	0.00	71	30	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	78.5	44.4	2.83	62.0	33.7	4.29	73.0	46.7	1.75	71.5	35.3	1.55

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1979
FOR THE MONTH OF SEPTEMBER

DAY	PAGOSA SPRINGS			WOLF CREEK 1E			DELMORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	80	35	0.00	66	27	0.00	81	43	0.00	82	02	0.00
2	78	37	0.00	74	28	0.00	76	45	0.00	82	02	0.00
3	83	38	0.00	67	31	0.00	79	43	0.00	82	02	0.00
4	81	41	0.00	72	33	0.00	80	46	0.00	82	02	0.00
5	85	34	0.00	74	30	0.00	79	45	0.00	82	02	0.00
6	84	36	0.00	72	30	0.00	81	46	0.00	82	02	0.00
7	84	39	0.00	76	31	0.00	81	46	0.00	82	02	0.00
8	86	43	0.00	76	31	0.00	80	47	0.00	82	02	0.00
9	84	42	0.00	74	30	0.00	79	46	0.00	82	02	0.00
10	84	42	0.00	71	40	0.00	80	49	0.00	82	02	0.00
11	81	38	0.00	70	40	0.00	77	48	0.01	82	02	0.00
12	80	41	0.00	66	37	0.00	75	47	0.02	82	02	0.00
13	76	34	0.00	68	34	0.00	69	38	0.00	82	02	0.00
14	72	45	0.08	58	34	0.00	59	37	0.31	82	02	0.00
15	70	31	0.00	60	26	0.42	61	35	0.00	82	02	0.00
16	75	31	0.00	56	30	0.00	70	34	0.00	82	02	0.00
17	73	35	0.00	61	34	0.00	72	38	0.00	82	02	0.00
18	75	31	0.00	60	36	0.00	70	41	0.00	82	02	0.00
19	73	30	0.02	62	31	0.00	72	36	0.00	82	02	0.00
20	72	35	0.00	63	32	0.00	77	44	0.00	82	02	0.00
21	67	37	0.05	62	30	1.18	65	42	0.13	82	02	0.00
22	75	31	0.00	62	31	0.00	70	36	0.00	82	02	0.00
23	78	33	0.02	61	32	0.00	74	40	0.00	82	02	0.00
24	78	33	0.00	62	31	0.00	74	41	0.00	82	02	0.00
25	77	36	0.00	63	33	0.00	75	43	0.00	82	02	0.00
26	74	39	0.00	64	31	0.00	73	40	0.00	82	02	0.00
27	72	36	0.04	66	32	0.00	68	43	0.00	82	02	0.00
28	75	30	0.00	62	36	0.00	71	37	0.00	82	02	0.00
29	76	30	0.00	63	31	0.00	73	38	0.00	82	02	0.00
30	76	29	0.00	64	34	0.00	74	39	0.00	82	02	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	77.5	35.7	0.21	65.9	32.2	1.60	73.8	41.8	0.47	0.0	0.0	0.00

MONTHLY CLIMATOLOGICAL DATA FOR THE YEAR 1980
FOR THE MONTH OF APRIL

DAY	FAGOSA SPRINGS			WOLF CREEK 1E			BELMORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	41	-4	0.00	36*	-10*	0.00*	41	7	0.00	42	6	0.00
2	38	23	0.27	29*	11*	1.10*	41	24	0.42	32	12	1.30
3	44	-11	0.00	26*	-1*	0.60*	45	14	0.00	30	12	0.00
4	52	14	0.00	32*	2*	0.00*	52	20	0.00	34	14	0.00
5	55	20	0.00	40*	8*	0.00*	54	25	0.00	36	13	0.00
6	53	22	0.00	43*	10*	0.20*	52	29	0.00	34	15	0.00
7	50	22	0.00	41*	10*	0.10*	45	23	0.00	22	-16	0.00
8	52	8	0.00	38*	-4*	0.10*	50	10	0.00	29	-12	0.00
9	57	14	0.00	40*	2*	0.00*	57	19	0.00	30	-12	0.00
10	60	20	0.00	45*	8*	0.20*	61	26	0.00	31	-11	0.00
11	47	25	0.00	48*	13*	0.00*	49	26	0.26	26	-10	0.00
12	47	25	0.00	35*	13*	0.50*	39	13	0.00	25	-12	0.00
13	42	8	0.03	35*	-4*	0.00*	49	13	0.00	29	-10	0.00
14	58	13	0.00	30*	1*	0.20*	65	23	0.00	30	-12	0.00
15	45	21	0.00	46*	9*	0.00*	65	26	0.00	31	-10	0.00
16	63	21	0.00	53*	9*	0.00*	62	28	0.00	29	-8	0.00
17	66	21	0.00	51*	9*	0.00*	66	28	0.00	38	-3	0.00
18	68	22	0.00	54*	10*	0.00*	72	28	0.00	38	-4	0.00
19	71	25	0.00	56*	13*	0.00*	72	31	0.00	40	0	0.00
20	73	29	0.00	59*	17*	0.00*	71	36	0.00	39	0	0.00
21	69	37	0.00	61*	25*	0.00*	70	36	0.00	40	-3	0.00
22	66	37	0.25	57*	25*	0.00*	67	39	0.01	38	-5	0.00
23	59	37	0.03	54*	25*	0.70*	64	32	0.00	40	0	0.00
24	50	34	0.11	47*	23*	0.40*	52	32	0.89	35	5	0.25
25	65	35	0.00	38*	23*	0.60*	48	24	0.00	32	-3	0.00
26	53	35	0.04	53*	23*	0.80*	43	29	0.08	40	0	0.00
27	40	30	0.00	41*	18*	0.20*	43	28	0.00	38	-4	0.00
28	65	32	0.00	48*	20*	0.00*	64	32	0.00	40	6	0.00
29	64	37	0.00	53*	25*	0.30*	61	37	0.00	37	4	0.00
30	54	37	0.18	52*	25*	0.10*	54	36	0.17	32	8	1.15
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	56.9	23.7	0.91	44.7	11.7	6.30	56.5	26.8	1.83	34.1	1.3	2.70

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1980
FOR THE MONTH OF MAY

DAY	FAGOSA SPRINGS			WOLF CREEK 1E			DELMORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	53	34	0.37	42	23	0.30	48	32	1.02	40	15	0.00
2	58	30	0.08	42	19	0.30	59	35	0.03	38	12	0.00
3	59	37	0.02	47	26	0.10	64	35	0.00	35	17	0.20
4	55	31	0.00	48	20	0.80	58	31	0.13	39	18	0.00
5	64	33	0.00	54	22	0.10	65	36	0.16	40	18	0.00
6	61	33	0.00	53	22	0.00	65	41	0.04	40	15	0.00
7	62	39	0.08	50	28	0.40	64	39	0.32	43	20	0.40
8	61	38	0.43	51	27	0.70	62	39	0.06	40	19	0.00
9	60	38	0.02	50	27	0.00	58	32	0.00	52	23	0.00
10	61	43	0.00	49	32	0.00	57	41	0.00	53	35	0.10
11	62	45	0.00	50	34	0.10	64	41	0.00	45	35	0.10
12	56	31	0.00	51	20	0.30	54	26	0.00	42	21	0.00
13	60	22	0.00	45	11	0.00	59	26	0.00	52	18	0.00
14	60	40	0.00	49	29	0.00	58	32	0.00	52	28	0.15
15	55	32	0.87	49	21	0.40	51	33	0.73	39	31	0.35
16	54	38	0.04	44	27	0.40	57	33	0.22	55	29	0.00
17	60	40	0.04	43	29	0.10	56	35	0.00	46	35	0.00
18	64	26	0.00	49	15	0.30	61	28	0.00	57	21	0.00
19	68	29	0.00	53	18	0.20	68	34	0.00	61	23	0.00
20	73	32	0.00	57	21	0.00	75	38	0.00	65	27	0.00
21	75	34	0.00	62	23	0.00	74	38	0.00	70	27	0.00
22	74	36	0.03	64	25	0.00	75	42	0.00	66	30	0.00
23	69	33	0.01	63	22	0.30	69	40	0.00	59	28	0.00
24	66	04	0.00	58	20	0.00	67	40	0.00	54	38	0.00
25	62	19	0.00	55	8	0.00	60	26	0.00	50	17	0.00
26	67	24	0.00	51	13	0.00	67	29	0.00	56	18	0.00
27	71	27	0.00	56	16	0.00	71	34	0.00	63	20	0.00
28	70	26	0.00	60	15	0.00	70	35	0.00	58	23	0.00
29	70	28	0.00	59	17	0.00	65	40	0.00	58	24	0.00
30	70	25	0.00	59	14	0.00	71	33	0.00	60	20	0.00
31	70	27	0.00	59	16	0.00	67	37	0.00	60	28	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	63.9	31.3	1.99	52.3	20.6	4.80	63.2	34.9	2.71	51.2	23.6	1.30

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1980
FOR THE MONTH OF JUNE

DAY	FAGOSA SPRINGS				WOLF CREEK IE				DELNORTE				HERMIT 7ESE			
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES
1	68	24	0.00	59	14	0.00	67	35	60	18	0.00	60	18	60	18	0.00
2	69	25	0.00	58	15	0.00	69	33	60	20	0.00	60	20	60	20	0.00
3	72	28	0.00	59	18	0.00	76	35	65	23	0.00	65	23	65	23	0.00
4	75	30	0.00	62	20	0.00	75	36	70	25	0.00	70	25	70	25	0.00
5	77	30	0.00	65	20	0.00	76	40	69	25	0.00	69	25	69	25	0.00
6	76	34	0.00	67	24	0.00	72	48	69	28	0.00	69	28	69	28	0.00
7	76	32	0.00	66	22	0.00	78	39	70	27	0.00	70	27	70	27	0.00
8	80	41	0.00	66	31	0.00	79	40	72	28	0.00	72	28	72	28	0.00
9	80	49	0.00	70	39	0.00	81	43	73	32	0.00	73	32	73	32	0.00
10	81	39	0.00	70	29	0.00	79	44	73	31	0.00	73	31	73	31	0.00
11	81	38	0.00	71	28	0.00	79	42	72	28	0.00	72	28	72	28	0.00
12	79	33	0.00	71	23	0.00	79	41	72	27	0.00	72	27	72	27	0.00
13	80	33	0.00	69	23	0.00	77	41	71	27	0.00	71	27	71	27	0.00
14	79	32	0.00	70	22	0.10	78	41	70	22	0.00	70	22	70	22	0.00
15	77	27	0.00	69	17	0.00	79	32	71	21	0.00	71	21	71	21	0.00
16	79	30	0.00	67	20	0.00	79	39	74	27	0.00	74	27	74	27	0.00
17	83	36	0.00	69	26	0.00	83	44	78	30	0.00	78	30	78	30	0.00
18	82	34	0.00	73	26	0.00	81	43	74	31	0.00	74	31	74	31	0.00
19	81	44	0.00	72	34	0.00	82	44	72	32	0.00	72	32	72	32	0.00
20	81	31	0.00	71	21	0.00	82	42	71	25	0.00	71	25	71	25	0.00
21	80	41	0.00	71	31	0.00	78	48	71	34	0.00	71	34	71	34	0.00
22	81	39	0.00	70	29	0.00	82	47	76	31	0.00	76	31	76	31	0.00
23	84	35	0.00	71	25	0.00	83	45	71	28	0.00	71	28	71	28	0.00
24	84	38	0.00	74	29	0.00	83	52	74	32	0.00	74	32	74	32	0.00
25	86	39	0.00	74	29	0.00	86	48	80	32	0.00	80	32	80	32	0.00
26	87	43	0.00	76	33	0.00	87	49	80	35	0.00	80	35	80	35	0.00
27	85	45	0.00	77	35	0.00	86	52	78	35	0.00	78	35	78	35	0.00
28	86	39	0.00	75	29	0.00	85	46	78	33	0.00	78	33	78	33	0.00
29	88	42	0.00	76	32	0.00	85	45	80	32	0.00	80	32	80	32	0.00
30	87	56	0.00	78	44	0.00	86	53	81	43	0.00	81	43	81	43	0.00

AVERAGE TEMPERATURES AND TOTAL PRECIPITATION

80.1	36.3	0.00	69.5	26.3	0.10	79.9	43.3	0.00	72.6	28.7	0.00
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ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1980
FOR THE MONTH OF JULY

DAY	FABOSA SPRINGS			WOLF CREEK IE			DELNORTE			HERMIT 7ESE		
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES
1	85	48	0.00	77	38	0.00	81	53	0.00	78	42	0.00
2	79	51	0.00	75	41	0.00	78	53	0.00	72	41	0.10
3	81	40	0.00	49	30	0.00	82	46	0.00	77	33	0.00
4	84	41	0.00	71	31	0.00	84	47	0.00	78	32	0.00
5	86	46	0.00	74	26	0.00	88	47	0.00	82	29	0.00
6	85	41	0.00	76	31	0.00	84	48	0.00	80	32	0.00
7	81	48	0.00	75	38	0.00	81	50	0.33	78	39	0.00
8	81	48	0.10	71	38	0.10	84	48	0.00	76	39	0.00
9	85	45	0.00	71	35	0.00	84	53	0.00	81	34	0.00
10	87	50	0.00	75	40	0.00	84	56	0.00	80	41	0.00
11	88	48	0.00	77	38	0.00	84	52	0.00	83	38	0.00
12	86	50	0.00	78	40	0.00	84	53	0.00	80	41	0.00
13	82	49	0.00	76	39	0.00	80	53	0.09	70	41	0.00
14	81	45	0.00	72	35	0.20	81	48	0.00	75	39	0.00
15	84	40	0.00	72	30	0.00	82	47	0.00	81	33	0.00
16	87	41	0.00	74	31	0.00	85	50	0.00	83	35	0.00
17	88	40	0.00	77	30	0.00	87	49	0.00	83	35	0.00
18	89	43	0.00	78	33	0.00	87	50	0.00	81	35	0.00
19	88	44	0.00	79	34	0.00	85	56	0.00	79	42	0.00
20	89	45	0.00	78	35	0.10	86	48	0.00	83	34	0.00
21	85	50	0.00	79	40	0.00	84	50	0.00	82	39	0.00
22	81	47	0.00	75	37	0.00	82	58	0.02	72	40	0.00
23	82	44	0.00	71	34	0.00	79	48	0.00	75	36	0.20
24	82	43	0.00	72	33	0.00	82	47	0.00	79	35	0.00
25	82	43	0.08	72	41	0.00	80	46	0.02	78	36	0.50
26	84	48	0.00	72	38	0.00	86	45	0.00	79	38	0.00
27	87	43	0.00	74	33	0.00	84	50	0.00	80	34	0.00
28	88	45	0.00	77	35	0.00	84	47	0.00	83	32	0.00
29	87	48	0.00	78	46	0.00	85	50	0.00	80	38	0.00
30	84	48	0.00	72	38	0.00	82	53	0.03	80	33	0.00
31	88	50	0.00	74	40	0.00	86	56	0.00	83	40	0.00
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION												
	84.7	45.5	0.18	74.7	35.8	0.40	83.5	50.2	0.49	79.1	36.9	0.80

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1980
FOR THE MONTH OF AUGUST

DAY	FAGUJA SPRINGS				WOLF CREEK 1E				DELNORTE				HERMIT 7ESE			
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP, INCHES	MAX TEMP DEG. F
1	88	49	0.00	66	40	0.20	83	51	0.02	78	38	0.00	78	38	0.00	78
2	90	44	0.00	68	40	0.30	80	58	0.13	75	44	0.00	75	44	0.00	75
3	81	50	0.03	76	46	0.00	79	46	0.05	79	38	0.00	79	38	0.00	79
4	86	47	0.00	78	42	0.00	84	51	0.00	76	37	0.00	76	37	0.00	76
5	85	44	0.00	72	40	0.60	76	48	0.09	77	35	0.00	77	35	0.00	77
6	86	48	0.00	72	40	0.20	84	48	0.00	78	36	0.20	78	36	0.20	78
7	88	50	0.00	75	44	0.00	86	49	0.00	81	39	0.00	81	39	0.00	81
8	87	54	0.02	75	43	0.30	81	52	0.11	72	44	0.10	72	44	0.10	72
9	83	49	0.03	70	40	0.45	80	49	0.00	80	45	0.00	80	45	0.00	80
10	87	44	0.01	71	42	0.00	84	48	0.00	82	35	0.00	82	35	0.00	82
11	87	44	0.00	75	38	0.35	83	48	0.03	82	31	0.00	82	31	0.00	82
12	83	50	0.01	70	36	0.00	80	39	0.00	76	41	0.00	76	41	0.00	76
13	84	42	0.00	66	36	0.10	82	40	0.00	78	34	0.00	78	34	0.00	78
14	75	51	0.00	68	40	0.30	78	38	0.01	73	38	0.40	73	38	0.40	73
15	77	55	0.19	62	44	0.60	75	53	0.00	66	47	0.25	66	47	0.25	66
16	76	41	0.00	63	42	0.00	75	44	0.00	70	32	0.00	70	32	0.00	70
17	80	36	0.00	68	36	0.00	79	42	0.00	73	29	0.00	73	29	0.00	73
18	78	41	0.00	64	35	0.25	76	45	0.00	70	33	0.00	70	33	0.00	70
19	76	55	0.00	67	34	0.00	75	51	0.00	67	41	0.00	67	41	0.00	67
20	76	32	0.00	62	33	0.00	76	41	0.00	67	28	0.00	67	28	0.00	67
21	80	32	0.00	58	30	0.00	79	40	0.00	75	25	0.00	75	25	0.00	75
22	76	36	0.01	62	30	0.00	82	39	0.12	75	25	0.00	75	25	0.00	75
23	72	53	0.86	61	32	1.85	72	50	0.42	58	45	0.85	58	45	0.85	58
24	68	48	0.09	65	32	1.00	70	48	0.35	57	44	0.40	57	44	0.40	57
25	73	54	0.48	55	38	0.95	73	51	0.12	62	43	0.40	62	43	0.40	62
26	76	42	0.00	54	42	0.00	71	45	0.00	69	34	0.00	69	34	0.00	69
27	76	39	0.00	63	34	0.00	74	40	0.00	69	32	0.00	69	32	0.00	69
28	77	42	0.00	62	36	0.00	76	39	0.00	71	31	0.00	71	31	0.00	71
29	76	40	0.00	62	41	0.00	74	43	0.00	69	31	0.00	69	31	0.00	69
30	73	38	0.00	60	42	0.00	72	41	0.00	65	30	0.00	65	30	0.00	65
31	74	34	0.00	58	41	0.00	74	40	0.00	69	29	0.00	69	29	0.00	69
AVERAGE TEMPERATURES AND TOTAL PRECIPITATION	79.5	44.6	1.73	66.1	38.4	7.45	77.9	46.1	1.45	72.2	35.9	2.60	72.2	35.9	2.60	72.2

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF CLIMATOLOGICAL DATA FOR THE YEAR 1980
FOR THE MONTH OF SEPTEMBER

DAY	FAGOSA SPRINGS				WOLF CREEK 1E				DELNORTE				HERMIT 7ESE			
	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F	MIN TEMP DEG. F	PRECIP. INCHES	MAX TEMP DEG. F
1	76	34	0.00	58*	25*	0.00*	78	40	0.00	71	29	0.00	71	29	0.00	71
2	78	33	0.00	67*	33*	0.00*	78	41	0.00	72	29	0.00	72	29	0.00	72
3	79	35	0.00	68*	26*	0.00*	79	41	0.00	75	27	0.00	75	27	0.00	75
4	81	35	0.00	70*	26*	0.00*	81	43	0.00	76	28	0.00	76	28	0.00	76
5	77	41	0.00	72*	32*	0.00*	79	46	0.00	67	30	0.00	67	30	0.00	67
6	71	43	0.01	68*	34*	0.00*	75	42	0.00	71	31	0.00	71	31	0.00	71
7	75	50	0.57	62*	41*	0.50*	73	54	0.00	69	41	0.10	69	41	0.10	69
8	77	49	0.00	66*	40*	0.00*	77	46	0.04	69	40	0.00	69	40	0.00	69
9	62	53	0.24	68*	44*	0.50*	61	51	0.08	58	45	0.30	58	45	0.30	58
10	63	52	0.35	53*	43*	1.00*	68	49	0.23	61	46	0.15	61	46	0.15	61
11	67	37	0.61	54*	28*	1.40*	69	46	0.08	64	34	0.00	64	34	0.00	64
12	70	34	0.00	58*	25*	0.00*	71	39	0.00	66	28	0.00	66	28	0.00	66
13	74	35	0.00	61*	26*	0.00*	72	39	0.00	66	28	0.00	66	28	0.00	66
14	75	39	0.00	65*	30*	0.00*	77	39	0.03	70	32	0.00	70	32	0.00	70
15	75	38	0.00	64*	29*	0.00*	77	42	0.00	71	30	0.00	71	30	0.00	71
16	75	41	0.00	66*	32*	0.00*	75	45	0.00	67	35	0.00	67	35	0.00	67
17	75	32	0.00	66*	23*	0.00*	78	44	0.00	70	25	0.00	70	25	0.00	70
18	79	31	0.00	66*	22*	0.00*	77	39	0.00	76	23	0.00	76	23	0.00	76
19	77	35	0.00	70*	26*	0.00*	75	43	0.00	71	30	0.00	71	30	0.00	71
20	71	36	0.00	68*	27*	0.00*	72	42	0.00	70	31	0.00	70	31	0.00	70
21	71	30	0.00	62*	21*	0.00*	71	38	0.00	65	23	0.00	65	23	0.00	65
22	70	25	0.00	62*	16*	0.00*	72	33	0.00	65	17	0.00	65	17	0.00	65
23	70	28	0.00	61*	19*	0.00*	72	32	0.00	67	19	0.00	67	19	0.00	67
24	72	25	0.00	61*	14*	0.00*	73	34	0.00	70	17	0.00	70	17	0.00	70
25	75	26	0.00	63*	17*	0.00*	72	33	0.00	71	15	0.00	71	15	0.00	71
26	72	37	0.00	66*	28*	0.00*	69	36	0.00	69	26	0.00	69	26	0.00	69
27	75	35	0.00	63*	26*	0.00*	74	34	0.00	70	26	0.00	70	26	0.00	70
28	71	33	0.00	66*	24*	0.00*	76	36	0.00	71	21	0.00	71	21	0.00	71
29	78	33	0.00	62*	24*	0.00*	77	40	0.00	73	25	0.00	73	25	0.00	73
30	80	32	0.00	69*	23*	0.00*	80	40	0.00	80	20	0.00	80	20	0.00	80

AVERAGE TEMPERATURES AND TOTAL PRECIPITATION

73.7 36.2 1.78 64.2 27.5 3.40 74.3 41.0 69.4 28.4 0.36

APPENDIX C

Adjusted Streamflow Records

**Rio Grande
1973-1980**

**South Fork
1973-1980**

ORIGINAL PAGE IS
OF POOR QUALITY

STREAM FLOW DATA FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.
THE DATA IS FOR THE YEAR OF 1973 DATA LISTED 12/12/80

DAY	APRIL ACTUAL FLOW CFS	MAY ACTUAL FLOW CFS	JUNE ACTUAL FLOW CFS	JULY ACTUAL FLOW CFS	AUGUST ACTUAL FLOW CFS	SEPTEMBER ACTUAL FLOW CFS
1	51.0	383.0	1360.0	1060.0	148.0	96.0
2	52.0	379.0	1230.0	978.0	182.0	81.0
3	49.0	464.0	1110.0	882.0	242.0	70.0
4	49.0	576.0	1060.0	835.0	242.0	66.0
5	49.0	615.0	930.0	735.0	235.0	64.0
6	54.0	536.0	984.0	650.0	230.0	61.0
7	57.0	482.0	1190.0	595.0	200.0	66.0
8	54.0	478.0	1420.0	605.0	141.0	60.0
9	82.0	620.0	1780.0	760.0	106.0	58.0
10	104.0	825.0	2170.0	610.0	113.0	70.0
11	103.0	984.0	2230.0	443.0	95.0	115.0
12	104.0	960.0	2260.0	403.0	90.0	88.0
13	118.0	924.0	1970.0	375.0	87.0	79.0
14	122.0	990.0	1900.0	368.0	81.0	78.0
15	99.0	1060.0	1540.0	337.0	95.0	84.0
16	85.0	1120.0	1310.0	295.0	81.0	78.0
17	104.0	1140.0	1200.0	260.0	74.0	75.0
18	131.0	1200.0	1160.0	255.0	72.0	70.0
19	106.0	1420.0	1130.0	278.0	74.0	66.0
20	95.0	1510.0	1060.0	245.0	75.0	63.0
21	88.0	1490.0	1070.0	225.0	98.0	59.0
22	96.0	1410.0	1060.0	208.0	104.0	53.0
23	139.0	1290.0	1060.0	185.0	95.0	52.0
24	173.0	1300.0	1070.0	165.0	84.0	54.0
25	188.0	1350.0	1130.0	160.0	84.0	53.0
26	235.0	1540.0	1180.0	158.0	85.0	57.0
27	295.0	1290.0	1240.0	160.0	74.0	58.0
28	423.0	1100.0	1260.0	169.0	61.0	74.0
29	518.0	1030.0	1180.0	171.0	66.0	91.0
30	496.0	1090.0	1130.0	158.0	88.0	90.0
31		1230.0		158.0	135.0	

ORIGINAL PAGE IS
OF POOR QUALITY

STREAM FLOW DATA FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE DATA IS FOR THE YEAR OF 1974 DATA LISTED 12/12/80

DAY	APRIL ACTUAL FLOW CFS	MAY ACTUAL FLOW CFS	JUNE ACTUAL FLOW CFS	JULY ACTUAL FLOW CFS	AUGUST ACTUAL FLOW CFS	SEPTEMBER ACTUAL FLOW CFS
1	116.0	313.0	563.0	87.0	88.0	44.0
2	110.0	364.0	491.0	72.0	99.0	42.0
3	90.0	415.0	419.0	63.0	129.0	40.0
4	82.0	443.0	375.0	60.0	152.0	39.0
5	75.0	431.0	375.0	59.0	128.0	37.0
6	77.0	431.0	358.0	61.0	111.0	39.0
7	81.0	447.0	344.0	58.0	104.0	36.0
8	82.0	554.0	347.0	63.0	122.0	36.0
9	96.0	700.0	289.0	58.0	128.0	36.0
10	99.0	785.0	280.0	53.0	162.0	38.0
11	85.0	846.0	283.0	50.0	128.0	46.0
12	82.0	825.0	289.0	47.0	115.0	44.0
13	72.0	795.0	272.0	47.0	99.0	41.0
14	70.0	715.0	260.0	54.0	90.0	47.0
15	70.0	760.0	262.0	74.0	82.0	57.0
16	72.0	810.0	258.0	78.0	69.0	54.0
17	87.0	775.0	255.0	95.0	58.0	39.0
18	122.0	690.0	242.0	134.0	55.0	38.0
19	148.0	715.0	235.0	115.0	54.0	36.0
20	122.0	550.0	225.0	96.0	67.0	39.0
21	108.0	464.0	205.0	82.0	64.0	38.0
22	113.0	447.0	188.0	110.0	63.0	39.0
23	152.0	473.0	173.0	84.0	60.0	44.0
24	188.0	522.0	160.0	90.0	59.0	45.0
25	228.0	482.0	143.0	93.0	59.0	41.0
26	295.0	550.0	133.0	78.0	57.0	42.0
27	316.0	605.0	126.0	75.0	52.0	49.0
28	283.0	645.0	116.0	78.0	46.0	46.0
29	280.0	675.0	110.0	95.0	45.0	44.0
30	286.0	645.0	111.0	85.0	44.0	48.0
31		620.0		78.0	46.0	

ORIGINAL PAGE IS
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STREAM FLOW DATA FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ. MI.

THE DATA IS FOR THE YEAR OF 1975 DATA LISTED 12/12/80

DAY	APRIL ACTUAL FLOW CFS	MAY ACTUAL FLOW CFS	JUNE ACTUAL FLOW CFS	JULY ACTUAL FLOW CFS	AUGUST ACTUAL FLOW CFS	SEPTEMBER ACTUAL FLOW CFS
1	38.0	222.0	924.0	1040.0	218.0	91.0
2	37.0	228.0	1110.0	1030.0	202.0	65.0
3	36.0	232.0	1270.0	1000.0	195.0	58.0
4	39.0	322.0	1440.0	972.0	182.0	67.0
5	48.0	347.0	1580.0	930.0	167.0	72.0
6	44.0	275.0	1800.0	864.0	176.0	71.0
7	80.0	235.0	1800.0	775.0	188.0	70.0
8	72.0	205.0	1880.0	765.0	180.0	71.0
9	65.0	260.0	1690.0	800.0	154.0	70.0
10	59.0	431.0	1530.0	760.0	124.0	72.0
11	57.0	610.0	1140.0	730.0	122.0	77.0
12	56.0	765.0	1070.0	665.0	124.0	110.0
13	56.0	864.0	1260.0	795.0	169.0	91.0
14	53.0	978.0	1490.0	700.0	145.0	93.0
15	58.0	1130.0	1630.0	615.0	137.0	90.0
16	79.0	1240.0	1700.0	572.0	124.0	71.0
17	93.0	1300.0	1540.0	536.0	116.0	61.0
18	81.0	1320.0	1600.0	473.0	108.0	50.0
19	78.0	1330.0	1610.0	439.0	98.0	45.0
20	99.0	1240.0	1210.0	431.0	88.0	44.0
21	141.0	1180.0	1080.0	482.0	118.0	46.0
22	192.0	1180.0	1060.0	455.0	106.0	45.0
23	220.0	978.0	1060.0	387.0	98.0	45.0
24	262.0	876.0	1160.0	262.0	93.0	45.0
25	344.0	990.0	1280.0	238.0	88.0	44.0
26	368.0	1120.0	1190.0	232.0	91.0	49.0
27	319.0	1200.0	1130.0	210.0	90.0	54.0
28	295.0	1160.0	1120.0	198.0	104.0	48.0
29	258.0	960.0	1060.0	198.0	103.0	47.0
30	225.0	840.0	1030.0	364.0	99.0	46.0
31		835.0		250.0	96.0	

ORIGINAL PAGE IS
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STREAM FLOW DATA FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE DATA IS FOR THE YEAR OF 1976 DATA LISTED 12/12/80

DAY	APRIL ACTUAL FLOW CFS	MAY ACTUAL FLOW CFS	JUNE ACTUAL FLOW CFS	JULY ACTUAL FLOW CFS	AUGUST ACTUAL FLOW CFS	SEPTEMBER ACTUAL FLOW CFS
1	90.0	364.0	1240.0	464.0	111.0	42.0
2	120.0	431.0	1330.0	364.0	143.0	42.0
3	160.0	496.0	1300.0	316.0	120.0	67.0
4	192.0	532.0	1380.0	283.0	124.0	69.0
5	178.0	550.0	1470.0	260.0	99.0	88.0
6	158.0	610.0	1430.0	238.0	85.0	137.0
7	141.0	572.0	1370.0	222.0	79.0	141.0
8	158.0	509.0	1380.0	220.0	85.0	160.0
9	210.0	419.0	1400.0	208.0	101.0	150.0
10	265.0	391.0	1330.0	178.0	115.0	158.0
11	310.0	447.0	1180.0	165.0	148.0	158.0
12	325.0	545.0	990.0	158.0	137.0	156.0
13	278.0	554.0	870.0	160.0	120.0	148.0
14	230.0	695.0	800.0	165.0	113.0	148.0
15	202.0	942.0	715.0	141.0	84.0	148.0
16	180.0	1130.0	655.0	135.0	54.0	143.0
17	160.0	1260.0	605.0	143.0	58.0	143.0
18	148.0	1390.0	554.0	129.0	66.0	150.0
19	141.0	1330.0	550.0	122.0	74.0	145.0
20	135.0	1190.0	572.0	126.0	85.0	176.0
21	148.0	1240.0	605.0	128.0	78.0	220.0
22	173.0	1190.0	630.0	116.0	70.0	89.0
23	208.0	1090.0	625.0	111.0	69.0	53.0
24	238.0	1160.0	522.0	103.0	79.0	42.0
25	298.0	1150.0	443.0	99.0	78.0	64.0
26	316.0	966.0	395.0	115.0	75.0	158.0
27	340.0	1070.0	364.0	126.0	74.0	129.0
28	391.0	1300.0	344.0	110.0	79.0	96.0
29	439.0	1400.0	328.0	98.0	81.0	79.0
30	383.0	1370.0	334.0	93.0	79.0	70.0
31		1150.0		95.0	65.0	

ORIGINAL PAGE IS
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STREAM FLOW DATA FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE DATA IS FOR THE YEAR OF 1977 DATA LISTED 12/12/80

DAY	APRIL ACTUAL FLOW CFS	MAY ACTUAL FLOW CFS	JUNE ACTUAL FLOW CFS	JULY ACTUAL FLOW CFS	AUGUST ACTUAL FLOW CFS	SEPTEMBER ACTUAL FLOW CFS
1	31.0	292.0	212.0	61.0	78.0	52.0
2	31.0	270.0	212.0	56.0	74.0	52.0
3	28.0	304.0	212.0	49.0	63.0	61.0
4	26.0	272.0	205.0	53.0	49.0	66.0
5	30.0	270.0	195.0	67.0	46.0	74.0
6	35.0	316.0	192.0	61.0	49.0	57.0
7	40.0	331.0	192.0	55.0	45.0	52.0
8	50.0	328.0	173.0	51.0	44.0	49.0
9	70.0	322.0	162.0	45.0	52.0	46.0
10	95.0	298.0	156.0	36.0	48.0	39.0
11	120.0	228.0	133.0	34.0	53.0	32.0
12	105.0	220.0	115.0	37.0	50.0	68.0
13	93.0	190.0	99.0	35.0	45.0	60.0
14	84.0	195.0	90.0	49.0	50.0	49.0
15	90.0	162.0	85.0	59.0	124.0	59.0
16	115.0	167.0	84.0	56.0	118.0	59.0
17	150.0	171.0	66.0	52.0	131.0	50.0
18	200.0	160.0	64.0	58.0	160.0	47.0
19	210.0	145.0	60.0	55.0	152.0	44.0
20	141.0	135.0	58.0	52.0	167.0	43.0
21	122.0	120.0	57.0	64.0	176.0	40.0
22	122.0	126.0	55.0	70.0	152.0	41.0
23	120.0	141.0	56.0	71.0	126.0	118.0
24	124.0	167.0	63.0	82.0	115.0	87.0
25	122.0	165.0	55.0	103.0	108.0	75.0
26	131.0	148.0	67.0	169.0	96.0	67.0
27	148.0	141.0	61.0	158.0	85.0	64.0
28	205.0	156.0	66.0	137.0	79.0	63.0
29	222.0	178.0	72.0	108.0	71.0	60.0
30	235.0	202.0	71.0	88.0	58.0	56.0
31		215.0		85.0	55.0	

STREAM FLOW DATA FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE DATA IS FOR THE YEAR OF 1978 DATA LISTED 12/12/80

DAY	APRIL ACTUAL FLOW CFS	MAY ACTUAL FLOW CFS	JUNE ACTUAL FLOW CFS	JULY ACTUAL FLOW CFS	AUGUST ACTUAL FLOW CFS	SEPTEMBER ACTUAL FLOW CFS
1	107.0	191.0	840.0	283.0	58.0	26.0
2	93.0	179.0	888.0	252.0	58.0	27.0
3	84.0	167.0	930.0	228.0	57.0	26.0
4	76.0	175.0	930.0	203.0	66.0	25.0
5	80.0	171.0	835.0	185.0	57.0	26.0
6	77.0	157.0	780.0	171.0	75.0	38.0
7	91.0	141.0	705.0	157.0	75.0	38.0
8	109.0	133.0	740.0	145.0	73.0	37.0
9	114.0	145.0	770.0	141.0	60.0	37.0
10	96.0	179.0	906.0	151.0	50.0	36.0
11	94.0	210.0	942.0	151.0	39.0	34.0
12	123.0	242.0	870.0	149.0	40.0	34.0
13	157.0	278.0	888.0	133.0	41.0	37.0
14	157.0	347.0	93.0	118.0	36.0	37.0
15	153.0	473.0	954.0	101.0	34.0	33.0
16	147.0	600.0	894.0	90.0	32.0	32.0
17	141.0	620.0	755.0	91.0	31.0	31.0
18	133.0	460.0	680.0	93.0	29.0	39.0
19	133.0	447.0	650.0	80.0	29.0	39.0
20	139.0	522.0	630.0	72.0	30.0	55.0
21	155.0	509.0	581.0	72.0	31.0	45.0
22	157.0	500.0	563.0	67.0	31.0	42.0
23	145.0	610.0	518.0	61.0	34.0	39.0
24	155.0	645.0	464.0	58.0	35.0	39.0
25	183.0	655.0	451.0	56.0	39.0	48.0
26	199.0	625.0	399.0	55.0	38.0	63.0
27	222.0	650.0	344.0	53.0	35.0	50.0
28	197.0	568.0	319.0	54.0	33.0	44.0
29	201.0	536.0	368.0	54.0	25.0	49.0
30	199.0	635.0	337.0	54.0	28.0	45.0
31		775.0		52.0	27.0	

ORIGINAL PAGE IS
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STREAM FLOW DATA FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE DATA IS FOR THE YEAR OF 1979 DATA LISTED 12/12/80

DAY	APRIL ACTUAL FLOW CFS	MAY ACTUAL FLOW CFS	JUNE ACTUAL FLOW CFS	JULY ACTUAL FLOW CFS	AUGUST ACTUAL FLOW CFS	SEPTEMBER ACTUAL FLOW CFS
1	80.0	581.0	1630.0	1570.0	179.0	75.0
2	80.0	640.0	1510.0	1380.0	163.0	72.0
3	76.0	600.0	1650.0	1240.0	153.0	66.0
4	78.0	540.0	1760.0	1100.0	139.0	60.0
5	80.0	635.0	1780.0	960.0	129.0	57.0
6	104.0	760.0	2070.0	924.0	125.0	56.0
7	137.0	820.0	2350.0	918.0	125.0	54.0
8	181.0	730.0	2300.0	894.0	125.0	53.0
9	181.0	615.0	1810.0	835.0	127.0	53.0
10	157.0	550.0	1400.0	775.0	135.0	53.0
11	133.0	482.0	1340.0	725.0	131.0	51.0
12	112.0	451.0	1610.0	660.0	157.0	50.0
13	120.0	447.0	1960.0	630.0	141.0	49.0
14	191.0	522.0	2240.0	615.0	131.0	50.0
15	252.0	615.0	2330.0	581.0	159.0	55.0
16	328.0	675.0	2350.0	545.0	215.0	55.0
17	407.0	695.0	2140.0	509.0	193.0	49.0
18	482.0	852.0	1830.0	468.0	157.0	47.0
19	482.0	1160.0	1550.0	423.0	143.0	45.0
20	435.0	1300.0	1320.0	383.0	133.0	47.0
21	427.0	1350.0	1330.0	361.0	125.0	49.0
22	496.0	1500.0	1430.0	347.0	114.0	47.0
23	630.0	1530.0	1540.0	316.0	107.0	45.0
24	685.0	1550.0	1570.0	289.0	101.0	45.0
25	635.0	1530.0	1560.0	262.0	97.0	46.0
26	534.0	1790.0	1610.0	230.0	94.0	45.0
27	540.0	1710.0	1670.0	212.0	93.0	43.0
28	545.0	1690.0	1650.0	205.0	85.0	43.0
29	568.0	1860.0	1570.0	230.0	81.0	41.0
30	527.0	1980.0	1520.0	235.0	80.0	40.0
31		1770.0		197.0	83.0	

ORIGINAL PAGE 19
OF POOR QUALITY

STREAM FLOW DATA FOR SOUTH FORK OF THE RIO GRANDE AT SINTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE DATA IS FOR THE YEAR OF 1980 DATA LISTED 4/12/82

DAY	APRIL ACTUAL FLOW CFS	MAY ACTUAL FLOW CFS	JUNE ACTUAL FLOW CFS	JULY ACTUAL FLOW CFS	AUGUST ACTUAL FLOW CFS	SEPTEMBER ACTUAL FLOW CFS
1	45.0	331.0	1160.0	780.0	83.0	49.0
2	50.0	298.0	1170.0	745.0	84.0	47.0
3	48.0	310.0	1280.0	680.0	85.0	44.0
4	52.0	364.0	1420.0	610.0	85.0	51.0
5	55.0	435.0	1540.0	540.0	84.0	61.0
6	57.0	500.0	1630.0	484.0	87.0	61.0
7	57.0	675.0	1560.0	439.0	87.0	56.0
8	58.0	770.0	1630.0	435.0	105.0	69.0
9	64.0	735.0	2040.0	375.0	102.0	84.0
10	70.0	660.0	2310.0	347.0	97.0	179.0
11	75.0	670.0	2150.0	325.0	91.0	278.0
12	75.0	615.0	2130.0	298.0	104.0	169.0
13	66.0	527.0	2000.0	272.0	111.0	139.0
14	72.0	522.0	1860.0	262.0	120.0	121.0
15	93.0	545.0	1670.0	222.0	129.0	107.0
16	114.0	527.0	1530.0	193.0	123.0	94.0
17	139.0	563.0	1500.0	167.0	114.0	80.0
18	175.0	572.0	1570.0	151.0	109.0	73.0
19	220.0	595.0	1490.0	141.0	105.0	66.0
20	280.0	695.0	1300.0	131.0	104.0	56.0
21	316.0	800.0	1150.0	125.0	88.0	54.0
22	379.0	978.0	1100.0	131.0	66.0	53.0
23	407.0	1140.0	1110.0	133.0	138.0	51.0
24	379.0	1100.0	1120.0	129.0	143.0	50.0
25	301.0	900.0	1100.0	120.0	131.0	50.0
26	255.0	852.0	1060.0	118.0	107.0	49.0
27	228.0	930.0	1040.0	109.0	102.0	48.0
28	255.0	1020.0	978.0	102.0	97.0	49.0
29	328.0	1090.0	864.0	96.0	80.0	47.0
30	361.0	1090.0	780.0	84.0	53.0	50.0
31		1130.0		88.0	52.0	

NOTE: MEASURED STREAMFLOWS ADJUSTED TO ACCOUNT FOR RESERVOIR STORAGE

ORIGINAL PAGE 13
OF POOR QUALITY

STREAM FLOW DATA FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE 1320 SQ. MI.

THE DATA IS FOR THE YEAR OF 1973 DATA LISTED 2/ 8/82

DAY	APRIL ACTUAL FLOW CFS	MAY ACTUAL FLOW CFS	JUNE ACTUAL FLOW CFS	JULY ACTUAL FLOW CFS	AUGUST ACTUAL FLOW CFS	SEPTEMBER ACTUAL FLOW CFS
1	198.0	1215.0	4859.0	4826.0	925.0	617.0
2	234.0	1253.0	4604.0	4577.0	866.0	567.0
3	263.0	1156.0	4047.0	4152.0	891.0	514.0
4	234.0	1492.0	3878.0	3718.0	949.0	477.0
5	235.0	1818.0	3588.0	3639.0	880.0	388.0
6	277.0	1669.0	3400.0	3062.0	896.0	398.0
7	278.0	1404.0	4011.0	2940.0	875.0	366.0
8	230.0	1521.0	4764.0	2676.0	856.0	444.0
9	244.0	1878.0	5798.0	2797.0	601.0	420.0
10	322.0	2457.0	6886.0	3716.0	662.0	468.0
11	336.0	3326.0	7643.0	2427.0	596.0	598.0
12	364.0	4000.0	7793.0	1386.0	628.0	558.0
13	399.0	3455.0	6920.0	2953.0	582.0	525.0
14	435.0	4046.0	6918.0	2009.0	389.0	492.0
15	435.0	3857.0	6311.0	1690.0	649.0	457.0
16	373.0	4020.0	5289.0	1679.0	593.0	438.0
17	401.0	4203.0	4535.0	1730.0	438.0	444.0
18	510.0	3926.0	4465.0	1560.0	535.0	434.0
19	378.0	5943.0	4405.0	1904.0	521.0	396.0
20	371.0	6423.0	4043.0	1579.0	552.0	354.0
21	410.0	5891.0	4070.0	1491.0	570.0	342.0
22	373.0	5389.0	4190.0	1326.0	660.0	324.0
23	509.0	4888.0	4274.0	1176.0	577.0	307.0
24	621.0	4986.0	4518.0	1115.0	501.0	330.0
25	635.0	5494.0	4798.0	1031.0	541.0	341.0
26	735.0	5557.0	4798.0	1052.0	211.0	341.0
27	879.0	4711.0	5240.0	978.0	796.0	334.0
28	1121.0	4037.0	5643.0	979.0	534.0	353.0
29	1325.0	3672.0	5285.0	1016.0	552.0	383.0
30	1483.0	3876.0	5135.0	932.0	587.0	383.0
31		4245.0		991.0	1026.0	

ORIGINAL PAGE IS
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STREAM FLOW DATA FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE 1320 SQ. MI.

THE DATA IS FOR THE YEAR OF 1974 DATA LISTED 2/ 8/82

DAY	APRIL ACTUAL FLOW CFS	MAY ACTUAL FLOW CFS	JUNE ACTUAL FLOW CFS	JULY ACTUAL FLOW CFS	AUGUST ACTUAL FLOW CFS	SEPTEMBER ACTUAL FLOW CFS
1	359.0	734.0	1711.0	488.0	358.0	198.0
2	357.0	851.0	1332.0	457.0	375.0	194.0
3	310.0	1000.0	1064.0	406.0	405.0	184.0
4	276.0	1164.0	1152.0	336.0	472.0	176.0
5	260.0	1262.0	1258.0	339.0	423.0	170.0
6	287.0	1210.0	905.0	332.0	377.0	161.0
7	278.0	1208.0	908.0	353.0	359.0	155.0
8	276.0	1519.0	916.0	371.0	389.0	146.0
9	317.0	1954.0	815.0	365.0	414.0	146.0
10	299.0	2392.0	818.0	330.0	495.0	146.0
11	261.0	2658.0	833.0	296.0	450.0	158.0
12	280.0	2631.0	836.0	264.0	402.0	155.0
13	251.0	2551.0	1101.0	258.0	372.0	149.0
14	228.0	2154.0	951.0	264.0	348.0	158.0
15	247.0	1913.0	1105.0	302.0	325.0	207.0
16	279.0	2190.0	1024.0	405.0	313.0	234.0
17	310.0	2453.0	1001.0	401.0	286.0	211.0
18	366.0	2056.0	1005.0	437.0	270.0	193.0
19	404.0	2225.0	878.0	497.0	237.0	179.0
20	395.0	1664.0	852.0	461.0	257.0	197.0
21	344.0	1275.0	799.0	394.0	247.0	193.0
22	272.0	1272.0	766.0	418.0	236.0	193.0
23	440.0	1435.0	753.0	400.0	236.0	202.0
24	511.0	1542.0	712.0	396.0	247.0	197.0
25	579.0	1187.0	542.0	402.0	241.0	202.0
26	785.0	1866.0	621.0	366.0	225.0	202.0
27	830.0	1992.0	619.0	360.0	225.0	202.0
28	770.0	2020.0	587.0	384.0	193.0	188.0
29	737.0	2075.0	555.0	384.0	191.0	173.0
30	664.0	2010.0	501.0	357.0	188.0	170.0
31		1999.0		339.0	188.0	

ORIGINAL PAGE IS
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STREAM FLOW DATA FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE 1320 SQ. MI.

THE DATA IS FOR THE YEAR OF 1975 DATA LISTED 2/ 8/82

DAY	APRIL ACTUAL FLOW CFS	MAY ACTUAL FLOW CFS	JUNE ACTUAL FLOW CFS	JULY ACTUAL FLOW CFS	AUGUST ACTUAL FLOW CFS	SEPTEMBER ACTUAL FLOW CFS
1	177.0	715.0	3254.0	4683.0	1188.0	364.0
2	59.0	789.0	3839.0	4600.0	1043.0	353.0
3	205.0	782.0	5260.0	4702.0	987.0	341.0
4	217.0	1119.0	6160.0	4989.0	905.0	356.0
5	273.0	1333.0	6723.0	4606.0	850.0	397.0
6	343.0	1020.0	7085.0	4685.0	722.0	337.0
7	389.0	878.0	6707.0	4233.0	832.0	357.0
8	306.0	721.0	6426.0	4010.0	841.0	373.0
9	278.0	825.0	6116.0	3959.0	835.0	427.0
10	289.0	1144.0	5619.0	3965.0	740.0	405.0
11	285.0	1624.0	4562.0	3866.0	705.0	375.0
12	269.0	2049.0	4360.0	3566.0	654.0	510.0
13	274.0	2264.0	5103.0	3408.0	1028.0	509.0
14	269.0	2740.0	6049.0	3128.0	874.0	497.0
15	290.0	3166.0	6698.0	2912.0	782.0	523.0
16	361.0	3681.0	7235.0	2831.0	686.0	433.0
17	401.0	3865.0	6426.0	2944.0	660.0	387.0
18	366.0	3857.0	5939.0	2520.0	687.0	371.0
19	324.0	4055.0	5378.0	2150.0	577.0	324.0
20	384.0	4298.0	4040.0	1956.0	573.0	319.0
21	474.0	4066.0	3759.0	2127.0	604.0	336.0
22	617.0	3879.0	3702.0	1894.0	596.0	337.0
23	743.0	3269.0	3903.0	1780.0	551.0	322.0
24	809.0	2739.0	4453.0	1746.0	542.0	316.0
25	1003.0	3043.0	5221.0	1630.0	504.0	317.0
26	1249.0	3584.0	4699.0	1627.0	480.0	317.0
27	1049.0	4263.0	4640.0	1483.0	445.0	320.0
28	843.0	4597.0	4755.0	1267.0	478.0	309.0
29	787.0	3881.0	4587.0	1281.0	482.0	308.0
30	643.0	3254.0	4446.0	1602.0	433.0	317.0
31		3186.0		1278.0	432.0	

ORIGINAL PAGE IS
OF POOR QUALITY

STREAM FLOW DATA FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE 1320 SQ. MI.

THE DATA IS FOR THE YEAR OF 1974 DATA LISTED 2/ 8/82

DAY	APRIL ACTUAL FLOW CFS	MAY ACTUAL FLOW CFS	JUNE ACTUAL FLOW CFS	JULY ACTUAL FLOW CFS	AUGUST ACTUAL FLOW CFS	SEPTEMBER ACTUAL FLOW CFS
1	330.0	961.0	4354.0	1953.0	553.0	431.0
2	491.0	1200.0	4395.0	1577.0	687.0	413.0
3	554.0	1468.0	4097.0	1417.0	594.0	413.0
4	662.0	1460.0	4493.0	1280.0	621.0	383.0
5	631.0	1560.0	4774.0	1131.0	545.0	371.0
6	558.0	1758.0	4743.0	1120.0	452.0	419.0
7	510.0	1963.0	4442.0	1015.0	420.0	481.0
8	552.0	1227.0	4507.0	941.0	465.0	468.0
9	624.0	1497.0	4581.0	929.0	516.0	413.0
10	746.0	1177.0	4512.0	842.0	620.0	413.0
11	879.0	1370.0	3942.0	806.0	599.0	407.0
12	965.0	1589.0	3332.0	762.0	600.0	407.0
13	854.0	1598.0	3086.0	849.0	537.0	401.0
14	753.0	1830.0	2937.0	1056.0	500.0	389.0
15	664.0	2592.0	2533.0	692.0	445.0	389.0
16	593.0	3596.0	2434.0	668.0	396.0	383.0
17	555.0	3840.0	2303.0	684.0	400.0	359.0
18	486.0	4395.0	2015.0	665.0	375.0	371.0
19	455.0	4056.0	2028.0	622.0	454.0	371.0
20	441.0	3825.0	2170.0	648.0	659.0	371.0
21	466.0	3601.0	2390.0	661.0	814.0	425.0
22	511.0	3458.0	2432.0	557.0	678.0	341.0
23	565.0	3103.0	2539.0	514.0	605.0	280.0
24	626.0	3342.0	2094.0	543.0	675.0	302.0
25	700.0	3399.0	1683.0	544.0	615.0	324.0
26	799.0	2861.0	1571.0	571.0	561.0	455.0
27	861.0	3144.0	1516.0	619.0	508.0	507.0
28	932.0	3992.0	1444.0	534.0	490.0	474.0
29	1103.0	4326.0	1396.0	474.0	490.0	437.0
30	1064.0	4574.0	1343.0	457.0	483.0	413.0
31		3416.0		460.0	463.0	

ORIGINAL PAGE IS
OF POOR QUALITY

STREAM FLOW DATA FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE 1320 SQ. MI.

THE DATA IS FOR THE YEAR OF 1977 DATA LISTED 2/ 8/82

DAY	APRIL ACTUAL FLOW CFS	MAY ACTUAL FLOW CFS	JUNE ACTUAL FLOW CFS	JULY ACTUAL FLOW CFS	AUGUST ACTUAL FLOW CFS	SEPTEMBER ACTUAL FLOW CFS
1	160.0	1058.0	989.0	259.0	281.0	219.0
2	173.0	758.0	1147.0	250.0	250.0	216.0
3	163.0	954.0	1091.0	212.0	227.0	258.0
4	159.0	861.0	1098.0	231.0	198.0	309.0
5	167.0	776.0	1098.0	259.0	201.0	319.0
6	188.0	1046.0	1050.0	290.0	201.0	271.0
7	213.0	1130.0	696.0	264.0	182.0	245.0
8	250.0	1157.0	914.0	246.0	172.0	234.0
9	355.0	1205.0	914.0	223.0	188.0	226.0
10	497.0	1356.0	883.0	198.0	192.0	215.0
11	601.0	689.0	733.0	178.0	188.0	204.0
12	466.0	832.0	598.0	169.0	185.0	258.0
13	364.0	704.0	504.0	169.0	175.0	309.0
14	316.0	660.0	477.0	182.0	172.0	255.0
15	349.0	562.0	418.0	201.0	238.0	242.0
16	442.0	573.0	364.0	208.0	437.0	290.0
17	548.0	589.0	325.0	198.0	520.0	305.0
18	826.0	550.0	298.0	208.0	527.0	272.0
19	933.0	483.0	268.0	223.0	468.0	246.0
20	640.0	426.0	249.0	223.0	462.0	231.0
21	502.0	352.0	235.0	264.0	481.0	227.0
22	506.0	331.0	218.0	272.0	455.0	227.0
23	513.0	394.0	205.0	268.0	401.0	290.0
24	584.0	515.0	264.0	300.0	368.0	315.0
25	589.0	508.0	264.0	315.0	351.0	281.0
26	607.0	425.0	281.0	407.0	356.0	250.0
27	684.0	380.0	272.0	569.0	310.0	242.0
28	699.0	421.0	277.0	541.0	286.0	238.0
29	685.0	545.0	268.0	481.0	264.0	231.0
30	754.0	718.0	268.0	378.0	231.0	219.0
31		887.0		325.0	227.0	

ORIGINAL PAGE IS
OF POOR QUALITY

STREAM FLOW DATA FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE 1320 SQ. MI.

THE DATA IS FOR THE YEAR OF 1978 DATA LISTED 2/ 8/82

DAY	APRIL ACTUAL FLOW CFS	MAY ACTUAL FLOW CFS	JUNE ACTUAL FLOW CFS	JULY ACTUAL FLOW CFS	AUGUST ACTUAL FLOW CFS	SEPTEMBER ACTUAL FLOW CFS
1	281.0	632.0	3195.0	1614.0	351.0	182.0
2	311.0	763.0	3121.0	1325.0	378.0	198.0
3	267.0	696.0	3287.0	1203.0	336.0	198.0
4	235.0	721.0	3311.0	1104.0	339.0	192.0
5	241.0	714.0	3125.0	985.0	314.0	188.0
6	182.0	653.0	2866.0	900.0	295.0	198.0
7	262.0	586.0	2822.0	831.0	295.0	198.0
8	303.0	548.0	2888.0	758.0	295.0	201.0
9	335.0	555.0	3064.0	701.0	256.0	201.0
10	303.0	641.0	3708.0	745.0	237.0	198.0
11	280.0	731.0	3938.0	776.0	233.0	188.0
12	320.0	782.0	3778.0	817.0	237.0	166.0
13	390.0	913.0	3679.0	730.0	230.0	166.0
14	440.0	1074.0	3482.0	672.0	222.0	163.0
15	353.0	1580.0	4111.0	680.0	202.0	160.0
16	422.0	2107.0	3779.0	627.0	192.0	158.0
17	416.0	2418.0	3136.0	561.0	187.0	158.0
18	373.0	1593.0	2742.0	575.0	181.0	166.0
19	353.0	1588.0	2718.0	526.0	181.0	172.0
20	358.0	1675.0	2713.0	499.0	184.0	205.0
21	387.0	1703.0	2429.0	491.0	164.0	208.0
22	395.0	1665.0	2379.0	505.0	175.0	192.0
23	395.0	1888.0	2308.0	485.0	210.0	188.0
24	405.0	2165.0	2229.0	452.0	203.0	188.0
25	492.0	2204.0	2284.0	414.0	193.0	201.0
26	554.0	2132.0	2063.0	366.0	187.0	223.0
27	687.0	2260.0	1906.0	333.0	184.0	216.0
28	655.0	1953.0	1720.0	317.0	181.0	198.0
29	663.0	1741.0	1858.0	306.0	187.0	201.0
30	644.0	2156.0	1782.0	296.0	193.0	198.0
31		2406.0		286.0		

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STREAM FLOW DATA FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE 1320 SQ. MI.

THE DATA IS FOR THE YEAR OF 1979 DATA LISTED 2/ 8/82

DAY	APRIL ACTUAL FLOW CFS	MAY ACTUAL FLOW CFS	JUNE ACTUAL FLOW CFS	JULY ACTUAL FLOW CFS	AUGUST ACTUAL FLOW CFS	SEPTEMBER ACTUAL FLOW CFS
1	223.0	1836.0	6165.0	5485.0	1090.0	473.0
2	411.0	2014.0	5973.0	5199.0	926.0	423.0
3	243.0	2047.0	6175.0	4890.0	880.0	436.0
4	247.0	1926.0	6446.0	4435.0	814.0	389.0
5	262.0	2123.0	6684.0	3950.0	789.0	369.0
6	294.0	2481.0	7441.0	3800.0	698.0	370.0
7	351.0	2840.0	8512.0	3742.0	750.0	314.0
8	446.0	2725.0	8642.0	3754.0	693.0	272.0
9	489.0	2337.0	7133.0	3655.0	724.0	313.0
10	464.0	1903.0	5782.0	3394.0	743.0	319.0
11	435.0	1648.0	5376.0	3655.0	695.0	300.0
12	385.0	1532.0	5030.0	2501.0	859.0	304.0
13	341.0	1465.0	7005.0	2867.0	1064.0	298.0
14	486.0	1634.0	7909.0	2787.0	837.0	304.0
15	624.0	1954.0	9033.0	2701.0	918.0	447.0
16	784.0	2370.0	8407.0	2490.0	1235.0	357.0
17	984.0	2490.0	9047.0	2725.0	1155.0	334.0
18	1255.0	2877.0	7072.0	2673.0	959.0	304.0
19	1350.0	3712.0	5946.0	2354.0	967.0	282.0
20	1277.0	4319.0	5044.0	2123.0	899.0	291.0
21	1264.0	4493.0	4824.0	2076.0	850.0	319.0
22	1344.0	5075.0	5245.0	1989.0	771.0	288.0
23	1394.0	5778.0	5700.0	1823.0	699.0	279.0
24	1826.0	5646.0	5760.0	1663.0	640.0	274.0
25	1856.0	6049.0	5640.0	1570.0	613.0	273.0
26	1590.0	6318.0	5874.0	1458.0	584.0	264.0
27	1611.0	7289.0	5891.0	1389.0	592.0	259.0
28	1606.0	7286.0	5845.0	1316.0	547.0	263.0
29	1760.0	7643.0	5519.0	1414.0	509.0	259.0
30	1700.0	7974.0	3414.0	1362.0	497.0	238.0
31		7622.0		1206.0	508.0	

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STREAM FLOW DATA FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE 1320 SQ. MI.

THE DATA IS FOR THE YEAR OF 1980 DATA LISTED 4/12/82

DAY	APRIL ACTUAL FLOW CFS	MAY ACTUAL FLOW CFS	JUNE ACTUAL FLOW CFS	JULY ACTUAL FLOW CFS	AUGUST ACTUAL FLOW CFS	SEPTEMBER ACTUAL FLOW CFS
1	195.0	1213.0	4465.0	3129.0	560.0	366.0
2	243.0	1093.0	4358.0	3010.0	509.0	380.0
3	225.0	1097.0	4633.0	2826.0	615.0	349.0
4	247.0	1248.0	5102.0	2559.0	529.0	389.0
5	266.0	1414.0	5709.0	2268.0	496.0	363.0
6	283.0	1533.0	6094.0	2203.0	470.0	312.0
7	288.0	1948.0	5907.0	1938.0	457.0	340.0
8	255.0	2262.0	5811.0	2049.0	476.0	355.0
9	284.0	2310.0	6981.0	1866.0	490.0	361.0
10	306.0	2032.0	7633.0	1755.0	434.0	623.0
11	334.0	2011.0	7674.0	1648.0	416.0	1641.0
12	288.0	1889.0	7602.0	1474.0	397.0	974.0
13	288.0	1581.0	7271.0	1510.0	372.0	743.0
14	305.0	1528.0	6575.0	1456.0	447.0	644.0
15	375.0	1569.0	6023.0	1323.0	493.0	595.0
16	430.0	1499.0	5564.0	1171.0	491.0	536.0
17	483.0	1529.0	5322.0	989.0	422.0	449.0
18	554.0	1554.0	5510.0	909.0	396.0	436.0
19	684.0	1574.0	5596.0	842.0	366.0	406.0
20	853.0	1923.0	5205.0	910.0	393.0	370.0
21	983.0	2522.0	4733.0	897.0	323.0	359.0
22	1105.0	3443.0	4519.0	770.0	262.0	353.0
23	1458.0	4257.0	4505.0	729.0	431.0	333.0
24	1240.0	4555.0	4552.0	811.0	841.0	325.0
25	995.0	3811.0	4358.0	784.0	743.0	320.0
26	903.0	3368.0	4202.0	701.0	621.0	317.0
27	858.0	3382.0	4107.0	679.0	541.0	298.0
28	959.0	3636.0	3903.0	582.0	486.0	288.0
29	1171.0	3959.0	3467.0	510.0	453.0	293.0
30	1311.0	4111.0	3134.0	729.0	334.0	300.0
31		4292.0		426.0	335.0	

NOTE: MEASURED STREAMFLOWS ADJUSTED TO ACCOUNT FOR RESERVOIR STORAGE


```

10 REM *****ADJUST*****
20 REM ADJUST IS A PROGRAM WRITTEN BY PETER L. PALMER FOR
30 REM THE USDA SOIL CONSERVATION SERVICE (SNOW SURVEYS)
40 REM TO ADJUST THE OBSERVED USGS GAGING STATION READINGS
50 REM FOR THE RIO GRANDE AT DEL NORTE, COLORADO FOR UPSTREAM
60 REM RESERVOIR STORAGE AND RELEASES.
70 REM
80 REM ***** INITIALIZE VARIABLES *****
85 REM
90 DIM R(35): REM (R.G. RES. STORAGE FOR EACH DAY OF MONTH)
100 DIM S(35): REM (S.M. RES. STORAGE FOR EACH DAY OF MONTH)
110 DIM C(35): REM (CONT. RES. STORAGE FOR EACH DAY OF MONTH)
120 DIM O(35): REM (OBSERVED GAGE READING AT DEL NORTE)
130 DIM W(35): REM (CHANGE IN R.G. RES. STORAGE)
140 DIM T(35): REM (CHANGE IN S.M. RES. STORAGE)
150 DIM M(35): REM (CHANGE IN CONT. RES. STORAGE)
160 DIM Z(35): REM (SUM OF ALL THREE RESERVOIR STORAGES
170 REM CONVERTED TO ACRE-FEET/DAY)
180 DIM A(35): REM (ADJUSTED GAGE READING AT DEL NORTE)
190 REM
200 Y=0: REM (YEAR)
210 R1=0: REM (RIO GRANDE RESERVOIR STORAGE [DAY M+1])
220 S1=0: REM (SANTA MARTA RESERVOIR STORAGE [DAY M+1])
230 C1=0: REM (CONTINENTAL RESERVOIR STORAGE [DAY M+1])
240 Z1=0: REM (SUM OF RESERVOIR CHANGES FOR DAY 0)
250 M=0: REM (NUMBER OF DAYS IN MONTH)
260 J=0: REM (DAY OF MONTH SUBSCRIPT)
270 M="ZZZZZZZZ": REM (PRINT FORMAT CHARACTER)
280 B="ZZZ": REM (PRINT FORMAT CHARACTER)
290 F=CHAR(12): REM (FORNFEED CHARACTER)
300 REM B: REM (MONTH)
310 I=0: REM (CORRECT INPUT CHECK)
320 K=0: REM (NUMBER OF DAYS WITH ZERO STORAGE (M) DATA)
330 A9=0: REM (AVERAGE)
340 H=0: REM (SUBSCRIPT FOR FIRST DAY WITH 0 STORAGE (M) DATA)
350 REM
360 REM ***** SET UP INPUT DATA *****
370 REM
380 INPUT "WHAT MONTH"; B
390 PRINT B
400 I=0
410 INPUT "CORRECT, PUSH RETURN; INCORRECT, PUSH -1 AND RETURN"; I
420 IF I<0 GOTO 380
430 PRINT " "
440 PRINT " "
450 REM
460 INPUT "WHAT YEAR"; Y
470 I=0
480 PRINT Y
490 INPUT "CORRECT, PUSH RETURN; INCORRECT, PUSH -1 AND RETURN"; I
500 IF I<0 GOTO 460
510 PRINT " "
520 PRINT " "
530 REM
540 INPUT "HOW MANY DAYS IN MONTH"; M
550 PRINT M
560 I=0
570 INPUT "CORRECT, PUSH RETURN; INCORRECT, PUSH -1 AND RETURN"; I
580 IF I<0 GOTO 540
590 PRINT " "
600 PRINT " "
610 REM
620 PRINT "RIO GRANDE RESERVOIR STORAGE FOR DAY ONE OF NEXT MONTH"
621 PRINT "IF NO DATA, ENTER VALUE FOR LAST DAY OF THIS MONTH"
623 INPUT R1
630 PRINT R1
640 I=0
650 INPUT "CORRECT, PUSH RETURN; INCORRECT, PUSH -1 AND RETURN"; I
660 IF I<0 GOTO 620
670 PRINT " "
680 PRINT " "
690 REM
700 PRINT "SANTA MARTA RESERVOIR STORAGE FOR DAY ONE OF NEXT MONTH"
701 PRINT "IF NO DATA, ENTER VALUE FOR LAST DAY OF THIS MONTH"
702 INPUT S1
710 PRINT S1
720 I=0
730 INPUT "CORRECT, PUSH RETURN; INCORRECT, PUSH -1 AND RETURN"; I
740 IF I<0 GOTO 700

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750 PRINT : :
760 PRINT : :
770 REM
780 PRINT 'CONTINENTAL RESERVOIR STORAGE FOR DAY ONE OF NEXT MONTH'
781 PRINT 'IF NO DATA, ENTER VALUE FOR LAST DAY OF THIS MONTH'
782 INPUT C1
790 PRINT C1
800 I=0
810 INPUT 'CORRECT, PUSH RETURN; INCORRECT, PUSH -1 AND RETURN';I
820 IF I<0 GOTO 780
830 PRINT : :
840 PRINT : :
850 REM
860 PRINT 'SUM OF CHANGES IN RESERVOIR STORAGE FOR DAY 0?'
870 PRINT '(IF FIRST MONTH OF YEAR, ENTER 0)'
880 INPUT Z1
890 PRINT Z1
900 I=0
910 INPUT 'CORRECT, PUSH RETURN; INCORRECT, PUSH -1 AND RETURN';I
920 IF I<0 GOTO 860
930 PRINT : :
940 PRINT : :
950 REM
960 REM ***** SET UP RESERVOIR STORAGE AND CHANGE IN STORAGE ARRAYS *****
970 REM ***** FOR RIO GRANDE RESERVOIR *****
980 REM
1000 FOR J=1 TO N
1010 PRINT : :
1020 PRINT : :
1030 PRINT 'RIO GRANDE RESERVOIR STORAGE FOR';" ";J;" ";Y;"?"
1040 PRINT 'IF NO DATA, ENTER 0'
1050 INPUT R(J)
1060 PRINT R(J)";" ";J;" ";Y;"="";R(J)
1070 I=0
1080 INPUT 'CORRECT, PUSH RETURN; INCORRECT, PUSH -1 AND RETURN';I
1090 IF I<0 GOTO 1030
1100 NEXT J
1110 K=0
1120 FOR J=1 TO N
1130 IF R(J)=0 GOTO 1230
1140 H(J)=R(J+1)-R(J)
1150 IF K<0 GOTO 1180
1160 NEXT J
1170 IF K=0 GOTO 1235
1180 A9=(R(H+K)-R(H-1))/(K+1)
1190 FOR L=(H-1) TO (H+K-1)
1200 H(L)=A9
1210 NEXT L
1215 K=0
1220 GOTO 1160
1230 IF K=0 THEN H=J
1240 K=K+1
1250 GOTO 1160
1255 H(N)=R1-R(N)
1260 REM
1270 REM ***** SET UP RESERVOIR STORAGE AND CHANGE IN STORAGE ARRAY *****
1280 REM ***** FOR SANTA MARTA RESERVOIR *****
1290 REM
1300 FOR J=1 TO N
1310 PRINT : :
1320 PRINT : :
1330 PRINT 'SANTA MARTA RESERVOIR STORAGE FOR';" ";J;" ";Y;"?"
1340 PRINT 'IF NO DATA, ENTER 0'
1350 INPUT S(J)
1360 PRINT S(J)";" ";J;" ";Y;"="";S(J)
1370 I=0
1380 INPUT 'CORRECT, PUSH RETURN; INCORRECT, PUSH -1 AND RETURN';I
1390 IF I<0 GOTO 1330
1400 NEXT J
1410 K=0
1420 FOR J=1 TO N
1430 IF S(J)=0 GOTO 1530
1440 T(J)=S(J+1)-S(J)
1450 IF K<0 GOTO 1480
1460 NEXT J
1470 IF K=0 GOTO 1555
1480 A9=(S(H+K)-S(H-1))/(K+1)
1490 FOR L=(H-1) TO (H+K-1)
1500 T(L)=A9
1510 NEXT L

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1515 K=0
1520 GOTO 1440
1530 IF K=0 THEN M=J
1540 K=K+1
1550 GOTO 1440
1555 T(N)=S1-S(N)
1560 REM
1570 REM ***** SET UP RESERVOIR STORAGE AND CHANGE IN STORAGE ARRAY *****
1580 REM ***** FOR CONTINENTAL RESERVOIR *****
1590 REM
1600 FOR J=1 TO N
1610 PRINT " "
1620 PRINT " "
1630 PRINT "CONTINENTAL RESERVOIR STORAGE FOR:" "ID:" "J:", "Y:?"
1640 PRINT "IF NO DATA, ENTER 0"
1650 INPUT C(J)
1660 PRINT D:" "J:", "Y:"=C(J)
1670 I=0
1680 INPUT "CORRECT, PUSH RETURN; INCORRECT, PUSH -1 AND RETURN:" I
1690 IF I<>0 GOTO 1630
1700 NEXT J
1710 K=0
1720 FOR J=1 TO N
1730 IF C(J)=0 GOTO 1830
1740 M(J)=C(J+1)-C(J)
1750 IF K<>0 GOTO 1780
1760 NEXT J
1770 IF K=0 GOTO 1855
1780 A9=(C(M+K)-C(N-1))/(K+1)
1790 FOR L=(N-1) TO (M+K-1)
1800 M(L)=A9
1810 NEXT L
1815 K=0
1820 GOTO 1760
1830 IF K=0 THEN M=J
1840 K=K+1
1850 GOTO 1760
1855 M(N)=C1-C(N)
1860 REM
1870 REM ***** SET UP OBSERVED STREAMFLOW DATA *****
1880 REM
1890 FOR J=1 TO N
1900 PRINT " "
1910 PRINT " "
1920 PRINT "ENTER OBSERVED STREAMFLOW DATA FOR:" "ID:" "J:", "Y:?"
1930 INPUT O(J)
1940 PRINT D:" "J:", "Y:"=O(J)
1950 I=0
1960 INPUT "CORRECT, PUSH RETURN; INCORRECT, PUSH -1 AND RETURN:" I
1970 IF I<>0 GOTO 1920
1980 NEXT J
1990 REM
2000 REM
2010 REM ***** COMPUTE SUM OF ALL THREE RESERVOIR STORAGE CHANGES (Z) AND *****
2020 REM ***** CONVERT TO C.F.S. PER DAY (DIVIDE A.F. BY 1.98347) *****
2030 REM
2040 FOR J=1 TO N
2050 Z(J)=(M(J)+T(J)+M(J))/1.98347
2060 NEXT J
2070 REM
2080 REM ***** ADJUST OBSERVED DEL NORTE READING (O) FOR THE SUM OF THE *****
2090 REM ***** RESERVOIR STORAGE CHANGES (ADD ONE DAY TRAVEL TIME) *****
2100 REM
2110 M(1)=O(1)+Z(1)
2120 FOR J=2 TO N
2130 M(J)=O(J)+Z(J-1)
2140 NEXT J
2150 REM
2160 REM ***** PRINT TABLE *****
2165 REM TURN ON PRINTER
2166 PRINT CHAR(17)
2167 REM
2170 REM
2180 REM FORMFEED
2190 PRINT F$
2200 REM
2210 PRINT "
2220 PRINT "
2230 PRINT "
2240 PRINT "

```

ADJUSTED STREAMFLOW AT DEL NORTE, COLORADO: RIO GRANDE RIVER
(ADJUSTED FOR RIO GRANDE, SANTA MARIA, AND CONTINENTAL RESERVOIRS)

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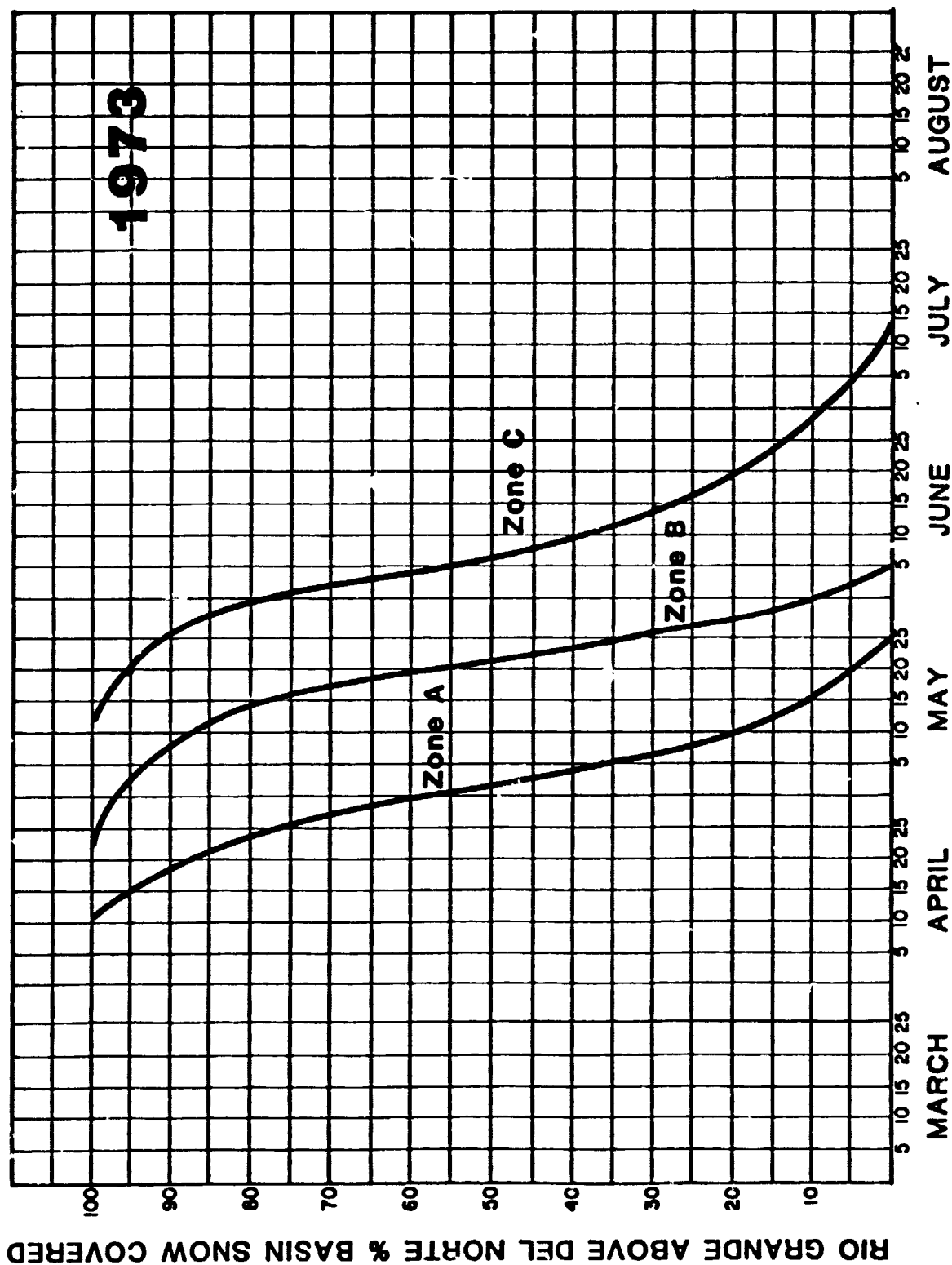
2250 PRINT "IM;" , "Y
2260 PRINT " :
2270 PRINT " :
2280 PRINT "      RIO GRANDE      SANTA MARTA      CONTINENTAL      PAGE READING (DEL NORTE)"
2290 PRINT "
2300 PRINT " DATE  STORAGE  CHANGE  STORAGE  CHANGE  STORAGE  CHANGE  SUM CHANGE (CFS/DAY) OBSERVER ADJUSTED"
2310 PRINT "-----"
2320 PRINT "
2330 FOR J=1 TO N
2340 PRINT "
2350 PRINT FMT(J,B$);" " FMT(R(J),A$); FMT(H(J),A$); FMT(S(J),A$);" " FMT(T(J),A$); FMT(C(J),A$);" " FMT(D(J),A$);"
Z(J,A$);" " FMT(O(J),A$);" " FMT(A(J),A$)
2360 NEXT J
2370 PRINT F$
2380 PRINT CHAR$(19)
READY

```

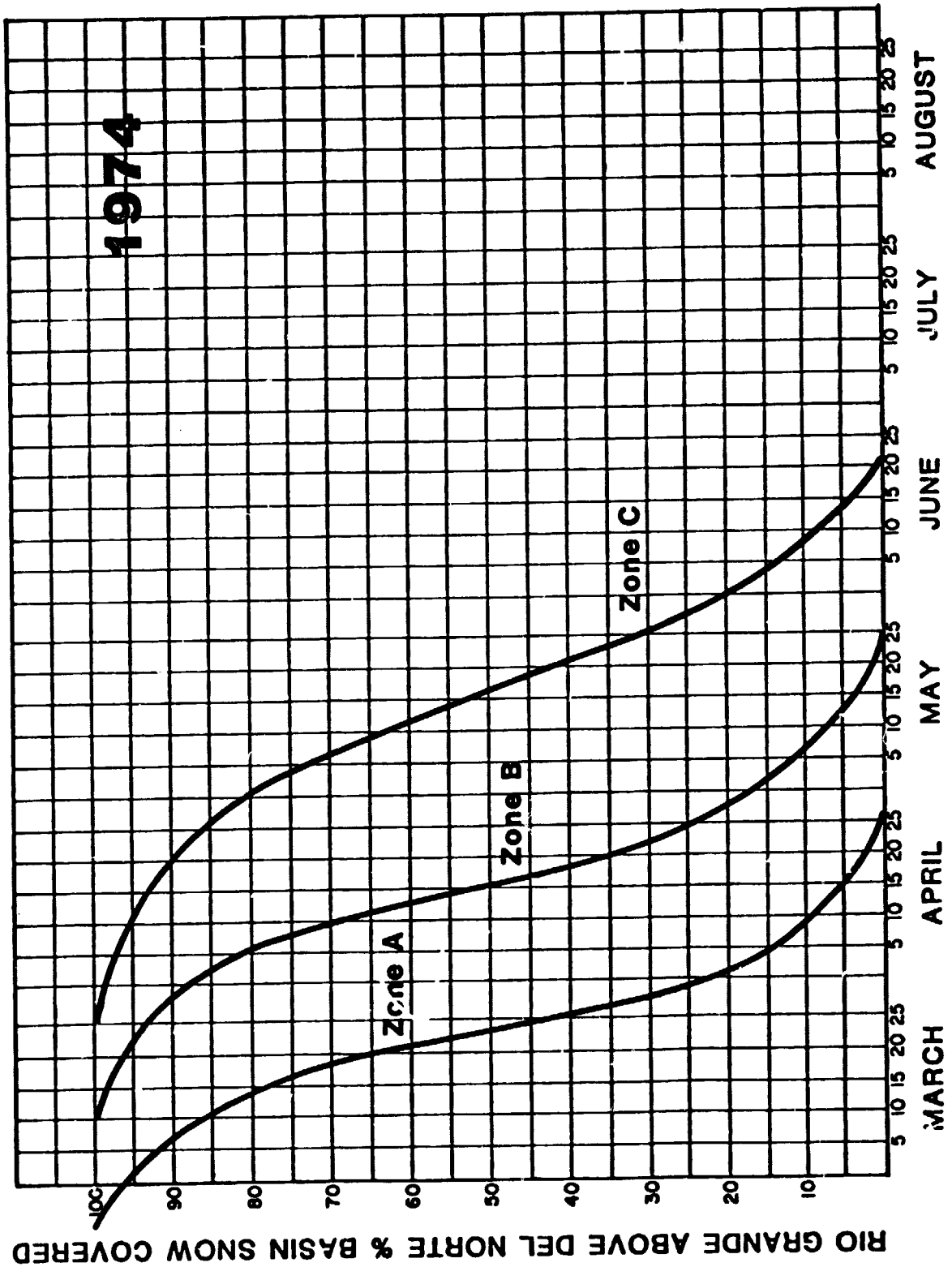
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APPENDIX D
Snow-Cover Depletion Curves
Rio Grande River above Del Norte
1973-1981

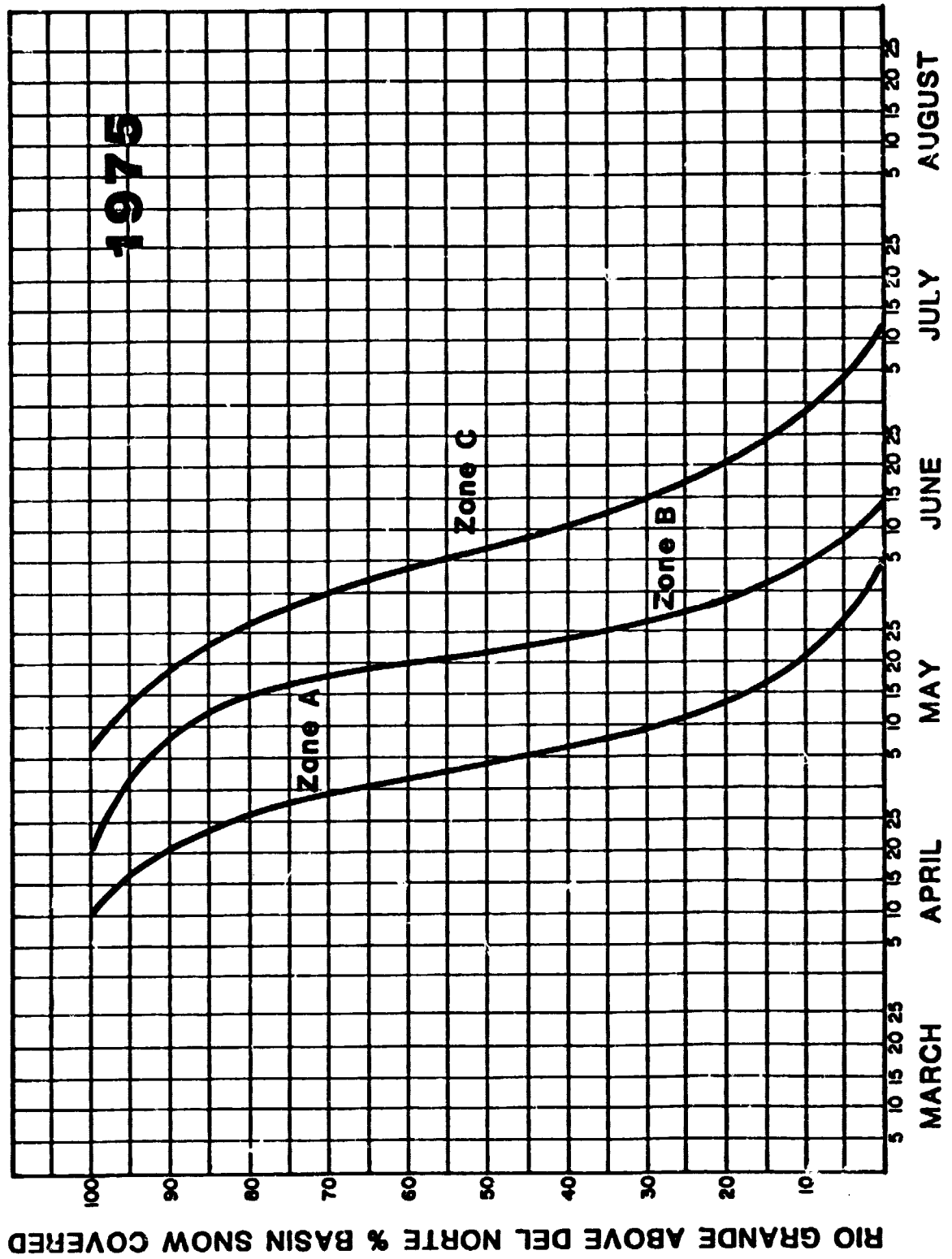
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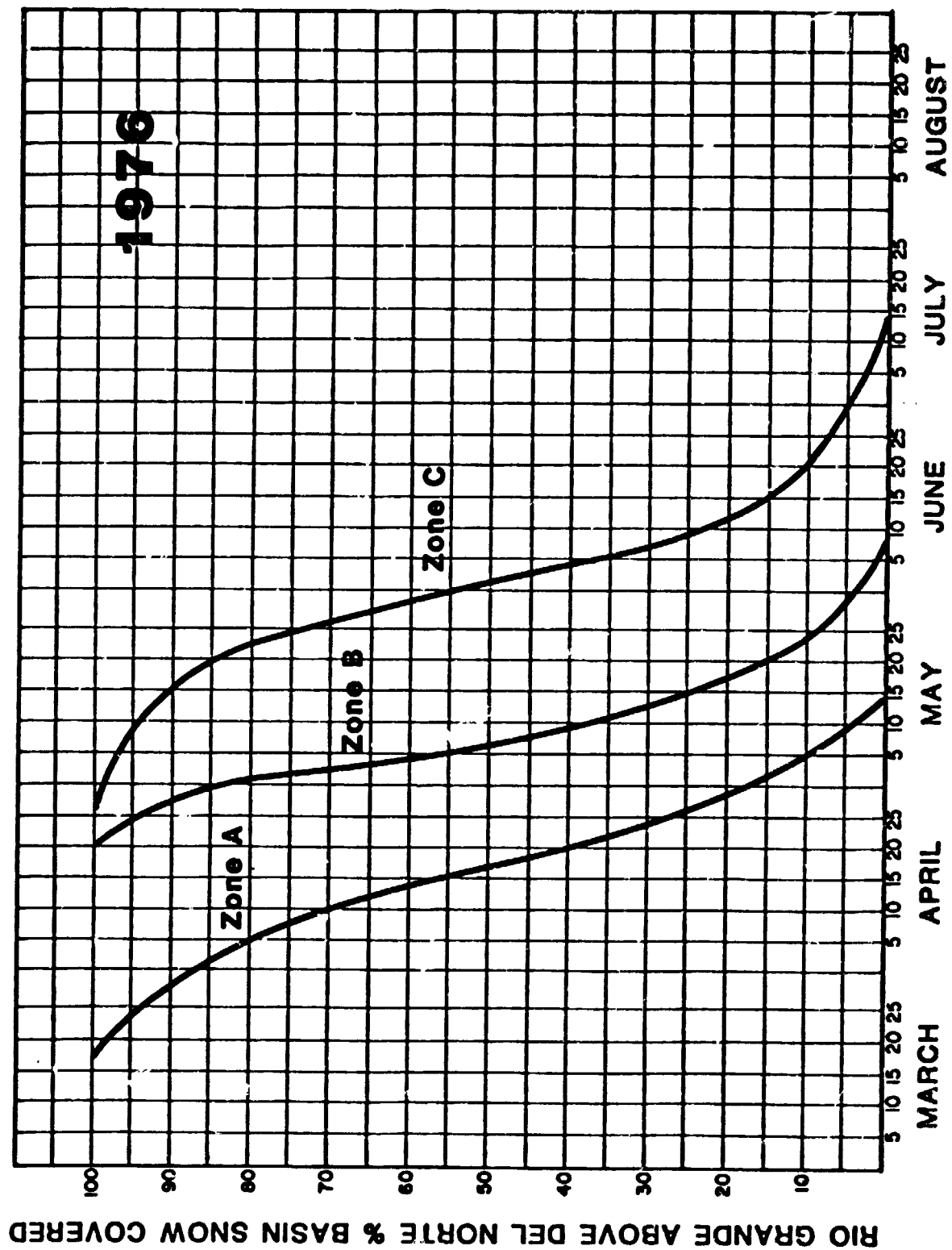
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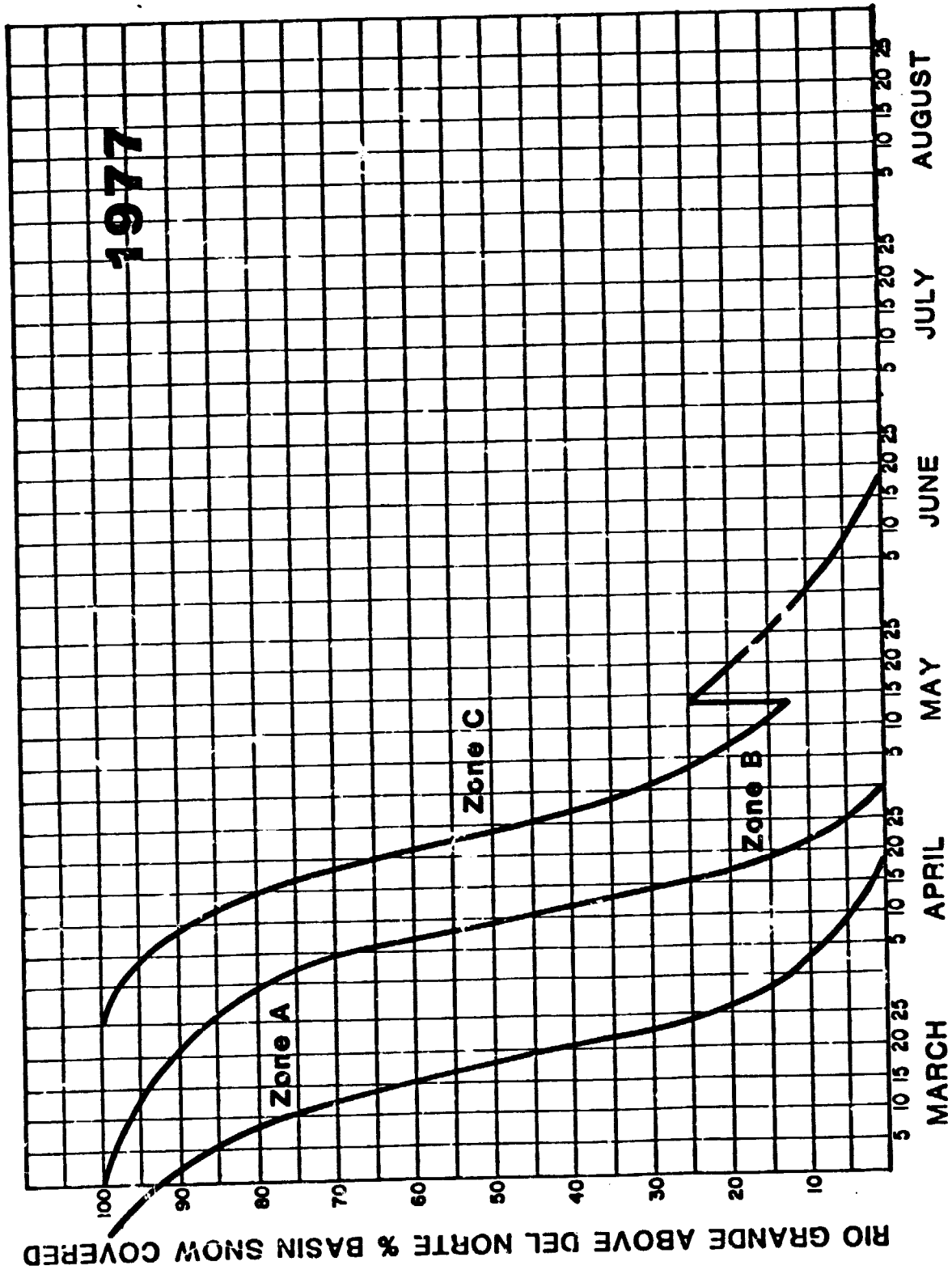
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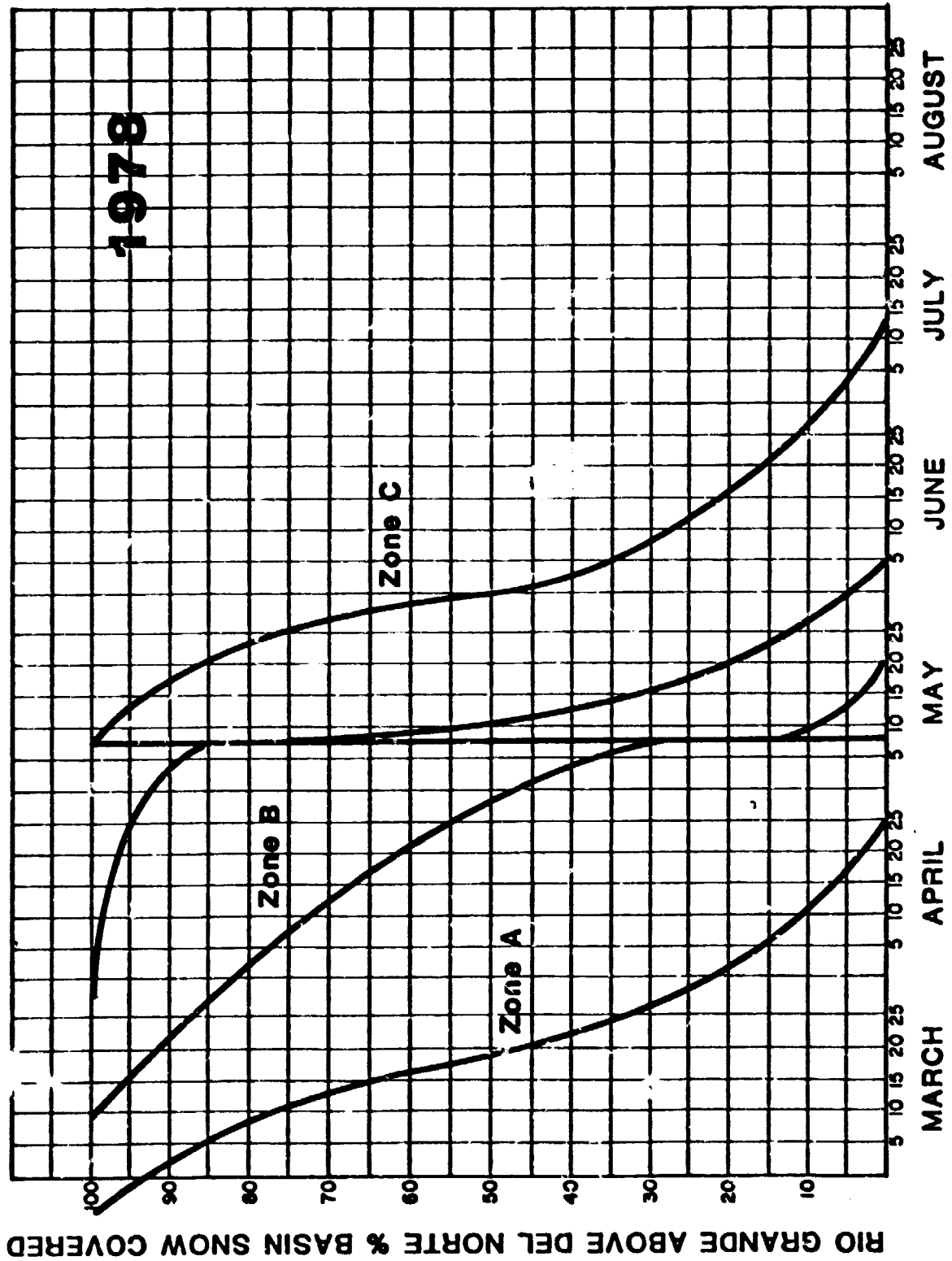
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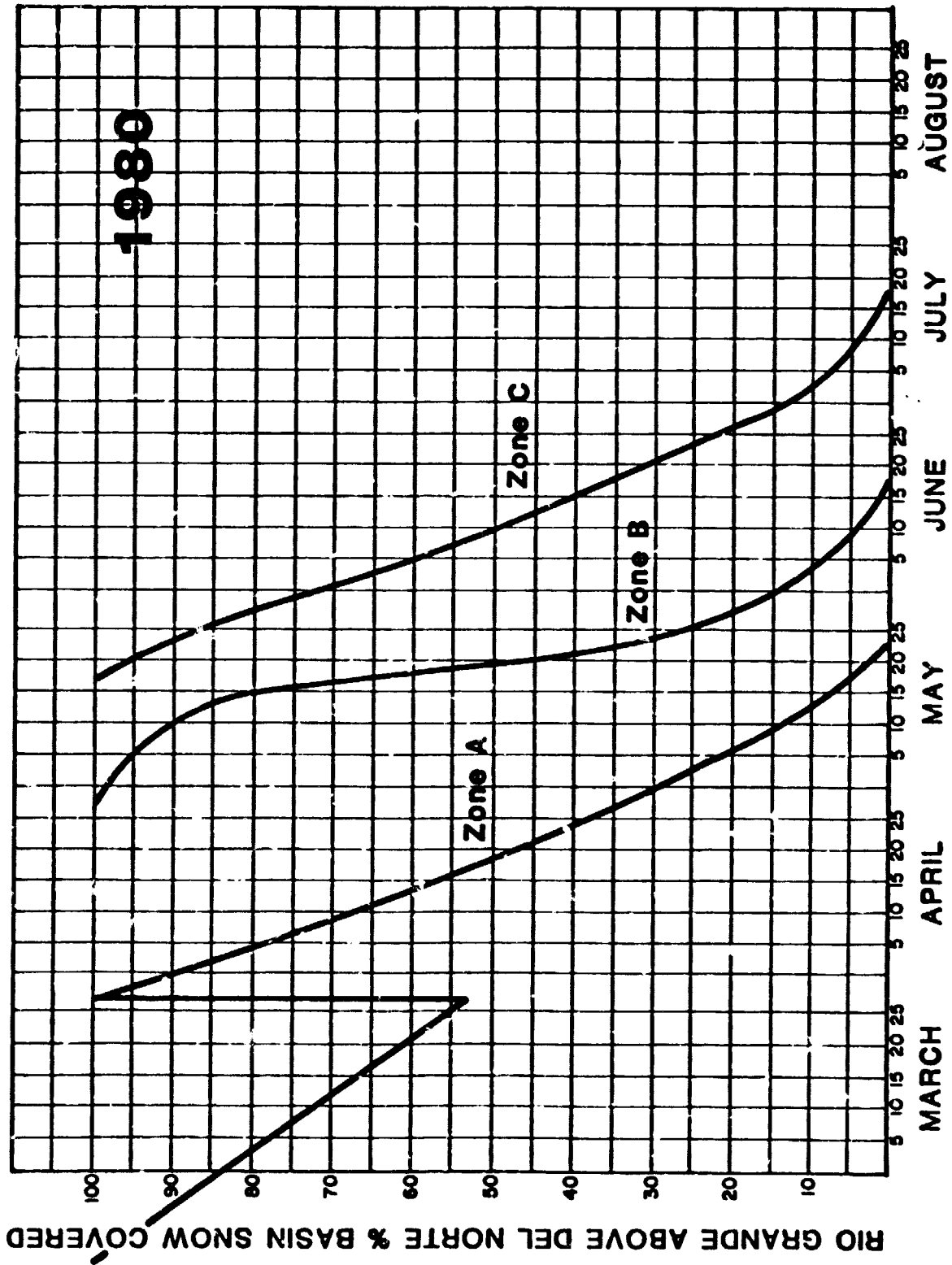
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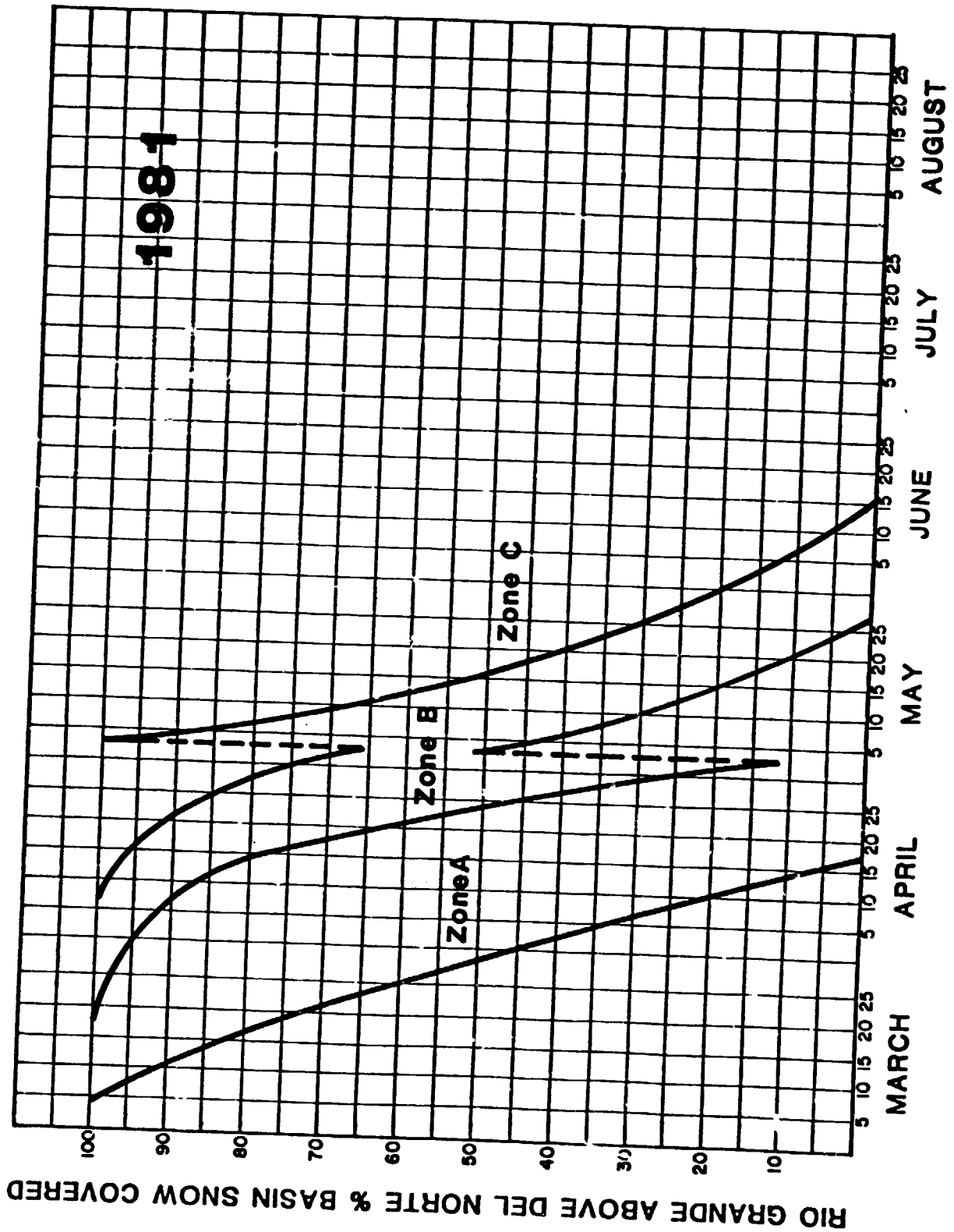


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APPENDIX E

**Zone Data for
Rio Grande above Del Norte
1973-1980**

**South Fork of Rio Grande
1980**

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A SUMMARY OF HOURLY DATA FOR THE YEAR 1973
FOR THE MONTH OF APRIL
DEG. DAY = (THAX+THIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	0.00	0.08	0.00	0.19	0.00	0.29
2	0.00	0.23	0.00	0.04	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00
6	2.68	0.00	0.00	0.00	0.00	0.00
7	0.00	0.28	0.00	0.35	0.00	0.41
8	0.00	0.06	0.00	0.01	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
11	2.93	0.00	0.00	0.00	0.00	0.00
12	4.18	0.03	0.00	0.00	0.00	0.00
13	6.30	0.00	0.00	0.01	0.00	0.00
14	5.12	0.10	0.00	0.00	0.00	0.00
15	0.00	0.02	0.00	0.24	0.00	0.38
16	0.00	0.00	0.00	0.04	0.00	0.07
17	4.24	0.10	0.00	0.00	0.00	0.00
18	2.49	0.27	0.00	0.63	0.00	0.38
19	0.00	0.14	0.00	0.32	0.00	0.97
20	0.00	0.03	0.00	0.06	0.00	0.50
21	0.00	0.00	0.00	0.00	0.00	0.10
22	3.55	0.00	0.00	0.00	0.00	0.00
23	8.37	0.00	0.59	0.00	0.00	0.00
24	7.68	0.00	0.00	0.00	0.00	0.00
25	8.68	0.00	0.64	0.00	0.00	0.00
26	7.74	0.00	2.56	0.00	0.00	0.00
27	10.43	0.00	3.43	0.00	0.00	0.00
28	12.37	0.00	4.59	0.00	0.00	0.00
29	13.43	0.00	6.43	0.00	0.00	0.00
30	6.24	0.32	0.00	0.68	0.00	1.02
MONTHLY TOTALS						
	106.42	1.65	9.24	2.80	0.00	4.12

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A SUMMARY OF MODEL DATA FOR THE YEAR 1973
FOR THE MONTH OF MAY
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	4.55	0.04	0.00	0.09	0.00	0.14
2	5.05	0.02	0.00	0.00	0.00	0.00
3	7.	0.00	0.00	0.00	0.00	0.00
4	13.50	0.00	8.11	0.00	2.88	0.00
5	12.31	0.16	5.82	0.38	0.00	0.58
6	4.99	0.05	0.00	0.13	0.00	0.19
7	9.11	0.00	0.30	0.00	0.00	0.00
8	12.11	0.00	3.30	0.00	0.00	0.00
9	15.24	0.00	5.91	0.00	0.00	0.00
10	20.74	0.00	13.48	0.00	6.50	0.00
11	22.81	0.00	16.32	0.00	10.09	0.00
12	18.62	0.01	11.88	0.00	5.39	0.00
13	13.87	0.18	8.16	0.38	2.68	0.57
14	13.31	0.01	6.82	0.00	0.59	0.00
15	12.74	0.01	7.56	0.00	2.57	0.00
16	17.43	0.06	10.43	0.00	3.70	0.00
17	17.37	0.00	11.66	0.00	6.18	0.00
18	25.68	0.00	17.64	0.00	9.91	0.00
19	22.31	0.00	15.82	0.00	9.59	0.00
20	18.37	0.00	10.59	0.00	3.11	0.00
21	17.87	0.05	10.09	0.09	2.61	0.13
22	9.55	0.08	2.04	0.10	0.00	0.13
23	14.24	0.01	6.98	0.00	0.00	0.00
24	17.05	0.00	9.54	0.00	2.31	0.00
25	16.55	0.44	9.04	1.04	1.81	1.62
26	11.43	0.12	4.43	0.02	0.00	0.00
27	6.68	0.00	0.72	0.00	0.00	0.00
28	14.74	0.00	9.56	0.00	4.57	0.00
29	17.49	0.00	11.27	0.00	5.29	0.00
30	18.62	0.00	13.95	0.00	9.47	0.00
31	18.06	0.02	12.61	0.04	7.38	0.06
MONTHLY TOTALS						
	451.12	1.19	244.04	2.27	96.63	3.42

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1973
FOR THE MONTH OF JUNE
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	15.24	0.19	7.98	0.19	1.00	0.29
2	10.93	0.02	1.85	0.02	0.00	0.45
3	10.93	0.00	1.85	0.00	0.00	0.75
4	13.18	0.13	5.14	0.13	0.00	0.27
5	11.18	0.00	5.22	0.00	0.00	0.00
6	19.37	0.00	13.66	0.00	8.18	0.00
7	22.56	0.00	17.11	0.00	11.88	0.00
8	26.68	0.00	20.72	0.00	14.98	0.00
9	26.93	0.00	22.01	0.00	17.27	0.00
10	28.31	0.00	21.82	0.00	15.59	0.00
11	27.31	0.00	20.82	0.00	14.59	0.00
12	24.81	0.00	20.40	0.00	16.16	0.05
13	22.43	0.03	17.51	0.03	12.77	0.57
14	16.68	0.00	8.64	0.00	0.91	0.00
15	20.68	0.00	14.72	0.00	8.98	0.00
16	17.81	0.00	13.40	0.00	2.16	0.00
17	17.50	0.00	13.35	0.00	9.36	0.00
18	21.81	0.00	17.40	0.00	13.16	0.00
19	12.62	0.00	7.95	0.00	3.47	0.00
20	16.87	0.00	11.16	0.00	5.68	0.00
21	19.43	0.00	14.51	0.00	9.77	0.00
22	22.06	0.00	16.61	0.00	11.38	0.00
23	26.06	0.00	20.61	0.00	15.38	0.00
24	26.12	0.00	21.45	0.00	16.97	0.00
25	26.74	0.00	21.56	0.00	16.57	0.00
26	31.74	0.00	26.56	0.00	21.57	0.00
27	29.81	0.00	25.40	0.00	21.16	0.00
28	29.12	0.18	24.95	0.18	19.97	0.00
29	28.56	0.00	25.19	0.00	21.95	0.00
30	31.24	0.00	26.06	0.00	21.07	0.00
MONTHLY TOTALS	654.68	0.55	485.13	0.55	338.93	2.38

ORIGINAL PAGE 15
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1973
FOR THE MONTH OF JULY
DEG. DAY = (TMAX+THIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	31.43	0.00	24.43	0.00	17.70	0.00
2	30.81	0.00	26.40	0.00	22.16	0.00
3	30.56	0.00	27.19	0.00	23.95	0.00
4	31.24	0.00	26.06	0.00	21.07	0.00
5	31.31	0.00	26.90	0.00	22.66	0.00
6	31.62	0.00	26.95	0.00	22.47	0.00
7	28.43	0.00	21.43	0.00	14.70	0.00
8	29.75	0.00	26.64	0.00	23.64	0.00
9	27.62	0.08	25.03	0.08	22.54	0.00
10	26.68	0.03	20.72	0.03	14.98	0.25
11	27.24	0.00	22.06	0.00	17.07	0.00
12	29.31	0.00	22.82	0.00	16.59	0.10
13	25.50	0.00	21.35	0.00	17.36	0.17
14	22.93	0.10	18.01	0.10	13.27	0.44
15	23.81	0.27	19.40	0.27	15.16	0.00
16	25.06	0.00	19.61	0.00	14.38	0.00
17	22.87	0.00	17.16	0.00	11.68	0.23
18	21.37	1.10	17.74	1.10	14.25	0.56
19	24.00	0.00	19.85	0.00	15.84	0.05
20	20.37	0.00	16.74	0.00	13.25	0.11
21	20.56	0.00	19.26	0.00	17.43	0.00
22	18.19	0.00	16.37	0.00	13.64	0.10
23	23.37	0.00	17.66	0.00	12.18	0.00
24	25.62	0.00	20.95	0.00	16.47	0.00
25	24.18	0.00	20.29	0.00	14.53	0.00
26	23.00	0.00	18.85	0.00	14.86	0.13
27	21.87	0.00	18.24	0.00	14.75	0.00
28	22.87	0.00	19.24	0.00	15.75	0.47
29	25.43	0.00	20.51	0.00	15.77	0.18
30	21.69	0.00	19.87	0.00	18.13	0.10
31	20.74	0.02	15.56	0.02	10.57	0.00
MONTHLY TOTALS	789.41	1.60	653.30	1.60	520.85	2.89

ORIGINAL PAGE 13
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1973
FOR THE MONTH OF AUGUST
DEG. DAY = (THAT+THIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	23.00	0.00	18.85	0.00	14.86	0.00
2	23.87	0.00	20.24	0.00	16.75	0.00
3	24.06	0.13	20.69	0.13	17.45	0.40
4	23.93	0.00	21.08	0.00	18.34	0.20
5	28.31	0.00	21.82	0.00	15.59	0.30
6	24.18	0.02	20.29	0.02	16.55	0.60
7	22.31	0.01	17.90	0.01	13.66	0.67
8	25.74	0.00	20.56	0.00	15.57	0.00
9	25.81	0.00	21.40	0.00	17.16	0.05
10	28.18	0.00	24.29	0.00	20.55	0.00
11	25.43	0.00	22.58	0.00	19.84	0.00
12	26.12	0.01	21.45	0.01	16.97	0.00
13	29.37	0.00	25.74	0.00	22.25	0.00
14	26.19	0.02	24.37	0.02	22.63	0.17
15	27.12	0.00	24.53	0.00	22.04	0.00
16	27.81	0.00	23.40	0.00	19.16	0.00
17	29.18	0.00	23.22	0.00	17.48	0.00
18	28.50	0.00	24.35	0.00	20.36	0.00
19	30.50	0.00	26.35	0.00	22.36	1.11
20	25.24	0.00	15.91	0.00	6.93	0.18
21	24.31	0.05	19.90	0.05	15.66	0.06
22	25.81	0.18	21.40	0.18	17.16	0.00
23	24.49	0.00	18.27	0.00	12.29	0.31
24	24.81	0.00	20.32	0.00	14.09	0.21
25	24.43	0.00	19.51	0.00	14.77	0.00
26	24.18	0.26	20.29	0.26	16.55	0.00
27	25.06	0.00	21.69	0.00	18.45	0.00
28	25.43	0.05	18.43	0.05	11.70	0.37
29	19.93	0.00	10.85	0.00	2.13	0.85
30	19.80	0.30	11.25	0.30	3.02	0.03
31	17.56	0.02	12.11	0.02	6.88	0.00
MONTHLY TOTALS	782.64	1.05	633.05	1.05	489.21	5.51

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1973
FOR THE MONTH OF SEPTEMBER
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	18.87	0.00	13.16	0.00	7.68	0.00
2	18.81	0.00	12.32	0.00	6.09	0.00
3	17.81	0.00	15.48	0.00	13.23	0.00
4	20.00	0.00	15.85	0.00	11.84	0.00
5	21.12	0.00	16.45	0.00	11.97	0.00
6	23.12	0.00	18.45	0.00	13.97	0.00
7	24.25	0.00	21.14	0.00	18.14	0.00
8	22.12	0.00	17.45	0.00	12.97	0.44
9	20.18	0.00	16.29	0.00	12.55	1.10
10	18.87	0.11	11.09	0.11	3.61	0.00
11	17.37	0.14	11.46	0.14	6.18	0.00
12	17.50	0.00	13.35	0.00	9.36	0.20
13	21.62	0.00	19.03	0.00	16.54	0.00
14	21.12	0.00	16.45	0.00	11.97	0.00
15	21.43	0.00	16.51	0.00	11.77	0.00
16	20.06	0.00	14.61	0.00	9.38	0.00
17	20.18	0.00	14.22	0.00	8.48	0.00
18	21.37	0.00	15.66	0.00	10.18	0.00
19	20.06	0.00	14.61	0.00	7.38	0.00
20	21.49	0.00	15.27	0.00	9.29	0.00
21	21.37	0.00	13.59	0.00	6.11	0.00
22	19.43	0.00	14.51	0.00	9.27	0.00
23	14.61	0.00	5.80	0.00	0.00	0.00
24	9.87	0.00	2.09	0.00	0.00	0.33
25	8.62	0.05	1.88	0.05	0.00	0.00
26	6.81	0.11	2.40	0.11	0.00	0.00
27	8.31	0.00	5.98	0.00	3.73	0.00
28	10.75	0.00	7.64	0.00	4.64	0.00
29	15.48	0.00	11.79	0.00	8.05	0.00
30	16.62	0.00	11.95	0.00	7.47	0.00
MONTHLY TOTALS	539.39	0.41	386.69	0.41	254.36	2.07

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1974
FOR THE MONTH OF APRIL
DEG. DAY = (THAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	0.00	0.22	0.00	0.52	0.00	0.81
2	0.00	0.05	0.00	0.11	0.00	0.17
3	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00
6	3.30	0.00	0.00	0.00	0.00	0.00
7	1.42	0.00	0.00	0.00	0.00	0.00
8	5.06	0.03	1.69	0.06	0.00	0.10
9	3.61	0.13	0.00	0.31	0.00	0.48
10	1.11	0.00	0.00	0.00	0.00	0.00
11	0.00	0.00	0.00	0.00	0.00	0.00
12	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.00	0.00	0.00	0.00
14	0.00	0.00	0.00	0.00	0.00	0.00
15	3.43	0.00	0.00	0.00	0.00	0.00
16	7.68	0.00	1.72	0.00	0.00	0.00
17	11.99	0.00	5.77	0.00	0.00	0.00
18	9.86	0.05	0.01	0.13	0.00	0.19
19	6.36	0.08	0.00	0.18	0.00	0.28
20	3.43	0.00	0.00	0.00	0.00	0.00
21	6.31	0.00	1.90	0.00	0.00	0.00
22	11.18	0.00	7.29	0.00	3.16	0.00
23	19.62	0.00	19.11	0.00	18.02	0.00
24	15.18	0.08	9.22	0.18	3.48	0.28
25	14.99	0.00	8.77	0.00	2.77	0.00
26	15.30	0.00	6.75	0.00	0.00	0.00
27	12.43	0.00	5.43	0.00	0.00	0.00
28	9.68	0.00	3.72	0.00	0.00	0.00
29	9.68	0.00	3.72	0.00	0.00	0.00
30	9.62	0.00	4.95	0.00	0.47	0.00
MONTHLY TOTALS	181.46	0.62	80.04	1.48	27.92	2.31

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1974
FOR THE MONTH OF MAY
DEG. DAY = (THICK+THIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	11.99	0.00	5.77	0.00	0.00	0.00
2	16.74	0.00	11.56	0.00	6.57	0.00
3	12.61	0.00	3.80	0.00	0.00	0.00
4	15.93	0.00	8.93	0.00	2.20	0.00
5	14.68	0.00	10.79	0.00	7.05	0.00
6	16.68	0.00	12.79	0.00	9.05	0.00
7	20.62	0.00	18.03	0.00	15.54	0.00
8	21.81	0.00	15.32	0.00	9.09	0.00
9	20.24	0.00	12.98	0.00	6.00	0.00
10	20.87	0.00	15.16	0.00	9.68	0.00
11	21.56	0.00	16.11	0.00	10.88	0.00
12	21.24	0.00	16.06	0.00	11.07	0.00
13	19.93	0.00	10.85	0.00	2.13	0.00
14	19.50	0.00	15.35	0.00	11.36	0.00
15	23.68	0.00	15.64	0.00	7.91	0.00
16	22.43	0.00	15.43	0.00	8.70	0.00
17	19.81	0.00	15.40	0.00	11.16	0.00
18	21.12	0.00	16.45	0.00	11.97	0.00
19	19.61	0.00	15.40	0.00	11.16	0.00
20	13.37	0.00	7.66	0.00	1.39	0.00
21	10.18	0.00	6.29	0.00	1.57	0.00
22	10.30	0.00	1.75	0.00	0.00	0.00
23	14.49	0.00	4.12	0.00	0.00	0.00
24	13.80	0.00	5.25	0.00	0.00	0.00
25	20.43	0.00	15.51	0.00	10.77	0.00
26	17.80	0.00	7.17	0.00	0.00	0.00
27	18.99	0.00	8.62	0.00	0.00	0.00
28	23.50	0.00	19.35	0.00	15.36	0.00
29	22.25	0.00	19.14	0.00	16.14	0.00
30	21.25	0.00	18.14	0.00	14.55	0.00
31	18.87	0.00	15.24	0.00	11.73	0.00
MONTHLY TOTALS		0.00	360.07	0.00	223.07	0.00

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1974
FOR THE MONTH OF JUNE
DEG. DAY = (THSX+THIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. C	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	13.31	0.00	15.13	0.00	15.11	0.15
2	16.93	0.00	14.08	0.00	11.34	0.00
3	15.75	0.00	14.71	0.00	13.71	0.00
4	18.31	0.00	13.90	0.00	9.66	0.00
5	15.62	0.00	9.88	0.00	3.37	0.00
6	14.30	0.00	5.75	0.00	0.00	0.63
7	10.61	0.00	0.00	0.00	0.00	0.00
8	12.12	0.19	11.61	0.19	10.71	0.00
9	18.31	0.00	13.90	0.00	9.66	0.00
10	20.00	0.00	15.85	0.00	11.84	0.00
11	23.31	0.00	18.90	0.00	14.66	0.00
12	24.43	0.00	21.58	0.00	18.84	0.00
13	25.68	0.00	21.79	0.00	18.03	0.00
14	27.49	0.00	21.27	0.00	15.29	0.00
15	27.74	0.00	22.56	0.00	17.57	0.00
16	25.93	0.00	23.08	0.00	20.34	0.00
17	25.00	0.00	20.85	0.00	16.86	0.00
18	25.50	0.00	23.42	0.00	21.43	0.00
19	27.93	0.00	25.08	0.00	22.34	0.00
20	30.12	0.00	25.45	0.00	20.97	0.00
21	29.18	0.00	23.22	0.00	17.48	0.00
22	28.93	0.00	24.01	0.00	19.27	0.00
23	29.50	0.00	25.35	0.00	21.36	0.00
24	29.59	0.00	25.79	0.00	22.05	0.00
25	29.04	0.05	23.61	0.03	18.38	0.00
26	28.31	0.00	25.98	0.00	23.73	0.00
27	28.81	0.00	22.32	0.00	16.09	0.00
28	29.81	0.00	23.32	0.00	17.09	0.00
29	30.43	0.00	25.51	0.00	20.77	0.00
30	27.43	0.04	20.43	0.04	13.70	0.00
MONTHLY TOTALS		0.28	578.33	0.28	461.73	0.83
7/10.53						

ORIGINAL PAGE NO.
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1974
FOR THE MONTH OF JULY
DEG. DAY = (THAXYTHIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	24.87	0.00	21.24	0.00	17.75	0.00
2	26.87	0.00	21.16	0.00	15.68	0.00
3	22.30	0.00	13.75	0.00	5.52	0.00
4	26.00	0.00	21.85	0.00	17.84	0.00
5	21.68	0.00	17.79	0.00	14.05	0.00
6	26.25	0.00	23.14	0.00	19.55	0.00
7	26.74	0.10	21.56	0.10	16.57	0.23
8	25.81	0.15	21.40	0.15	17.16	0.00
9	25.87	0.00	20.16	0.00	14.68	0.00
10	27.93	0.00	23.01	0.00	18.27	0.00
11	27.49	0.00	21.27	0.00	15.29	0.00
12	29.62	0.00	24.95	0.00	20.47	0.00
13	28.12	0.00	21.38	0.00	14.87	0.50
14	27.18	0.00	21.22	0.00	15.48	0.49
15	24.99	0.28	18.77	0.28	12.79	0.37
16	25.68	0.03	19.72	0.03	13.98	0.22
17	25.62	0.00	20.95	0.00	16.47	0.73
18	26.87	0.66	21.16	0.66	15.68	0.00
19	26.12	0.02	19.38	0.02	12.89	0.00
20	25.50	0.00	21.35	0.00	17.36	0.05
21	27.74	0.00	22.56	0.00	17.57	0.28
22	26.49	0.00	20.27	0.00	14.29	0.00
23	27.31	0.00	22.90	0.00	18.66	0.12
24	24.37	0.10	22.82	0.10	21.32	0.70
25	23.44	0.00	22.66	0.00	21.52	0.00
26	25.06	0.00	21.49	0.10	18.45	0.00
27	24.87	0.23	21.24	0.23	17.75	0.07
28	24.87	0.00	21.24	0.00	17.75	0.67
29	23.62	0.00	18.95	0.00	14.47	0.00
30	24.12	0.03	19.45	0.03	14.97	0.00
31	24.56	0.32	19.11	0.32	13.88	0.23
MONTHLY TOTALS		1.92	648.11	1.92	503.03	4.86
		797.95				

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ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1974
FOR THE MONTH OF AUGUST
DEG. DAY = (THAXYTHIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	24.87	0.12	21.24	0.12	17.75	0.20
2	22.75	0.05	21.71	0.05	20.32	0.15
3	23.49	0.00	21.87	0.00	19.34	0.25
4	22.81	0.08	20.48	0.08	18.23	0.33
5	23.68	0.00	19.79	0.00	16.05	0.00
6	24.37	0.00	18.64	0.00	13.18	0.00
7	24.93	0.03	20.01	0.03	13.27	0.44
8	19.24	0.06	14.06	0.06	9.07	0.11
9	18.18	0.33	14.29	0.33	10.55	0.43
10	19.00	0.00	14.85	0.00	10.84	0.00
11	21.12	0.00	16.45	0.00	11.97	0.23
12	22.56	0.00	17.11	0.00	11.88	0.00
13	24.24	0.00	19.04	0.00	14.07	0.00
14	23.93	0.00	19.01	0.00	14.27	0.00
15	26.12	0.00	21.45	0.00	16.97	0.00
16	26.74	0.00	21.56	0.00	16.57	0.00
17	27.87	0.00	22.16	0.00	16.48	0.00
18	28.74	0.00	23.54	0.00	18.57	0.00
19	26.74	0.05	19.48	0.05	12.50	0.42
20	25.56	0.05	20.11	0.05	14.88	0.00
21	22.62	0.05	17.95	0.05	13.47	0.00
22	23.00	0.06	18.85	0.06	14.84	0.00
23	23.50	0.00	19.35	0.00	15.36	0.00
24	22.31	0.00	17.90	0.00	13.46	0.00
25	24.18	0.00	20.27	0.00	14.53	0.00
26	24.50	0.00	20.35	0.00	16.36	0.00
27	26.93	0.22	19.93	0.22	13.20	0.00
28	21.06	0.00	17.67	0.00	14.45	0.00
29	23.50	0.00	19.35	0.00	15.34	0.00
30	22.50	0.00	20.42	0.00	18.43	0.00
31	23.00	0.00	18.85	0.00	14.84	0.00
MONTHLY TOTALS	734.22	1.10	597.85	1.10	465.54	2.58

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1974
FOR THE MONTH OF SEPTEMBER
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	23.99	0.00	17.77	0.00	11.79	0.00
2	24.04	0.00	18.61	0.00	13.38	0.00
3	19.31	0.00	19.05	0.00	18.61	0.00
4	22.54	0.00	21.26	0.00	19.04	0.00
5	21.50	0.00	19.42	0.00	17.43	0.00
6	26.24	0.00	21.06	0.00	16.07	0.00
7	24.50	0.00	20.35	0.00	16.34	0.00
8	24.31	0.00	19.90	0.00	15.64	0.00
9	26.24	0.08	21.06	0.08	16.07	0.11
10	25.06	0.03	21.69	0.03	18.45	0.00
11	24.87	0.00	19.16	0.00	13.68	0.00
12	21.93	0.00	19.08	0.00	16.34	0.00
13	18.37	0.00	16.82	0.00	15.32	0.20
14	17.68	0.13	13.79	0.13	10.05	0.40
15	12.68	0.80	6.72	0.80	0.98	0.29
16	12.43	0.00	7.51	0.00	2.77	0.00
17	12.74	0.00	7.56	0.00	2.57	0.00
18	16.93	0.00	12.01	0.00	7.27	0.00
19	19.43	0.00	14.51	0.00	9.72	0.00
20	18.93	0.00	14.01	0.00	9.27	0.00
21	18.56	0.00	15.19	0.00	11.95	0.00
22	17.37	0.00	15.82	0.00	14.32	0.48
23	16.12	0.00	11.45	0.00	6.97	0.47
24	18.56	0.00	13.11	0.00	7.88	0.00
25	17.93	0.00	13.01	0.00	8.27	0.00
26	16.56	0.00	13.19	0.00	9.95	0.04
27	17.00	0.08	14.92	0.08	12.93	0.00
28	14.13	0.00	15.68	0.00	16.00	0.00
29	14.75	0.00	15.79	0.00	16.00	0.00
30	17.68	0.00	13.79	0.00	10.05	0.00
MONTHLY TOTALS		1.12	473.29	1.12	365.20	2.01
582.44						

A SUMMARY OF MODEL DATA FOR THE YEAR 1975
FOR THE MONTH OF APRIL
DEG. DAY = (THAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	0.00	0.39	0.00	0.71	0.00	1.01
2	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00
4	3.55	0.00	0.00	0.00	0.00	0.00
5	5.49	0.00	0.00	0.00	0.00	0.00
6	5.18	0.00	0.00	0.00	0.00	0.00
7	2.37	0.17	0.00	0.40	0.00	0.63
8	0.00	0.11	0.00	0.25	0.00	0.39
9	0.00	0.00	0.00	0.38	0.00	0.00
10	0.00	0.16	0.00	0.74	0.00	0.60
11	0.00	0.43	0.00	0.34	0.00	1.04
12	0.00	0.39	0.00	0.10	0.00	0.33
13	0.24	0.33	0.00	0.00	0.00	0.09
14	0.00	0.00	0.00	0.00	0.00	0.00
15	2.99	0.00	0.00	0.00	0.00	0.00
16	8.00	0.00	3.85	0.00	0.00	0.00
17	7.68	0.06	0.00	0.13	0.00	0.21
18	0.00	0.02	0.00	0.03	0.00	0.04
19	0.00	0.00	0.00	0.00	0.00	0.00
20	7.37	0.00	0.00	0.00	0.00	0.00
21	9.99	0.00	3.77	0.00	0.00	0.00
22	11.68	0.00	5.72	0.00	0.00	0.00
23	10.93	0.00	6.01	0.00	1.27	0.00
24	10.49	0.00	2.19	0.00	0.00	0.00
25	13.18	0.00	7.22	0.00	1.48	0.00
26	12.93	0.14	8.01	0.34	3.27	0.53
27	1.17	0.09	0.00	0.21	0.00	0.32
28	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	0.00	0.00	0.00	0.00	0.00
30	0.00	0.00	0.00	0.00	0.00	0.00
MONTHLY TOTALS						
	113.24	2.27	36.76	3.62	6.02	5.14

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1975
FOR THE MONTH OF MAY
DEG. DAY = (THAX+THIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	4.24	0.00	0.00	0.00	0.00	0.00
2	6.05	0.05	0.00	0.11	0.00	0.17
3	7.18	0.00	0.00	0.00	0.00	0.00
4	7.11	0.00	0.00	0.00	0.00	0.00
5	8.55	0.20	0.00	0.00	0.00	0.74
6	0.00	0.04	0.00	0.09	0.00	0.14
7	0.00	0.00	0.00	0.00	0.00	0.00
8	7.61	0.00	0.00	0.00	0.00	0.00
9	9.99	0.00	1.69	0.00	0.00	0.00
10	14.55	0.00	4.94	0.00	0.00	0.00
11	15.30	0.00	4.67	0.00	0.00	0.00
12	12.55	0.00	2.94	0.00	0.00	0.00
13	13.74	0.00	4.41	0.00	0.00	0.00
14	16.61	0.00	5.72	0.00	0.00	0.00
15	18.68	0.00	12.72	0.00	6.98	0.00
16	18.62	0.00	13.95	0.00	9.47	0.00
17	16.99	0.01	10.77	0.02	4.79	0.03
18	18.49	0.00	10.19	0.00	2.22	0.00
19	14.37	0.01	8.64	0.03	3.18	0.04
20	17.55	0.00	7.94	0.00	0.00	0.00
21	16.84	0.09	7.01	0.22	0.00	0.35
22	10.86	0.00	1.01	0.00	0.00	0.00
23	2.62	0.07	0.00	0.09	0.00	0.11
24	10.43	0.00	3.43	0.00	0.00	0.00
25	17.24	0.00	9.98	0.00	3.00	0.00
26	18.49	0.00	12.27	0.00	6.29	0.00
27	18.06	0.04	12.61	0.12	7.38	0.17
28	16.74	0.04	7.41	0.13	0.00	0.21
29	8.62	0.00	1.88	0.00	0.00	0.00
30	12.81	0.00	6.32	0.00	0.09	0.00
31	14.43	0.01	7.43	0.00	0.70	0.00
MONTHLY TOTALS	375.36	0.50	158.03	1.28	44.02	1.95

ORIGINAL PAGE IS
OF POOR QUALITY

Σ SUMMARY OF MODEL DATA FOR THE YEAR 1975
FOR THE MONTH OF JUNE
DEG. DAY = (THAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	17.56	0.00	12.11	0.00	6.88	0.00
2	19.62	0.00	14.95	0.00	10.47	0.00
3	20.24	0.00	15.06	0.00	10.07	0.00
4	22.99	0.00	16.77	0.00	10.79	0.00
5	22.06	0.00	16.61	0.00	11.38	0.00
6	22.06	0.00	16.61	0.00	11.38	0.00
7	21.87	0.00	16.16	0.00	10.68	0.15
8	20.81	0.00	16.40	0.00	12.16	0.16
9	14.99	0.00	8.77	0.00	2.79	0.15
10	12.06	0.30	6.61	0.30	1.38	0.00
11	10.81	0.00	6.40	0.00	2.16	0.00
12	15.99	0.00	9.77	0.00	3.79	0.00
13	21.49	0.00	13.19	0.00	5.22	0.00
14	21.49	0.00	15.27	0.00	9.29	0.00
15	24.24	0.00	16.98	0.00	10.00	0.00
16	20.05	0.02	12.54	0.02	5.31	0.00
17	20.87	0.00	15.16	0.00	9.68	0.00
18	23.68	0.09	19.79	0.09	16.05	0.00
19	12.87	0.00	7.16	0.00	1.68	1.44
20	15.93	0.00	8.93	0.00	2.20	0.00
21	17.18	0.00	11.22	0.00	5.48	0.00
22	16.68	0.00	10.72	0.00	4.98	0.00
23	21.56	0.00	16.11	0.00	10.88	0.00
24	23.49	0.00	17.27	0.00	11.29	0.00
25	21.87	0.00	18.24	0.00	14.75	0.00
26	19.31	0.00	14.90	0.00	10.66	0.00
27	23.68	0.00	17.72	0.00	11.98	0.00
28	24.87	0.00	19.16	0.00	13.68	0.00
29	25.18	0.00	19.22	0.00	13.48	0.00
30	25.37	0.00	19.66	0.00	14.18	0.00
MONTHLY TOTALS						
	600.86	0.41	429.50	0.41	264.71	1.90

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1975
FOR THE MONTH OF JULY
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	27.93	0.00	23.01	0.00	18.27	0.00
2	27.99	0.00	21.77	0.00	15.79	0.00
3	26.74	0.00	21.56	0.00	16.57	0.00
4	26.56	0.60	21.11	0.60	15.88	0.00
5	26.56	0.00	21.11	0.00	15.88	0.03
6	27.99	0.00	21.77	0.00	15.79	0.00
7	27.99	0.00	21.77	0.00	15.79	0.02
8	29.18	0.60	23.22	0.60	17.48	0.19
9	23.49	0.21	17.27	0.21	11.29	0.58
10	26.81	0.00	20.32	0.00	14.09	0.21
11	25.24	0.12	20.06	0.12	15.07	0.00
12	25.99	0.00	19.77	0.00	13.79	0.20
13	25.37	0.04	19.66	0.04	14.18	0.35
14	25.62	0.00	20.95	0.00	16.47	0.00
15	26.12	0.05	21.45	0.05	16.97	0.32
16	23.74	0.01	18.56	0.01	13.57	0.25
17	26.06	0.02	20.61	0.02	15.38	0.00
18	26.12	0.00	19.38	0.00	12.89	0.00
19	29.12	0.00	22.38	0.00	15.87	0.00
20	28.18	0.00	24.29	0.00	20.55	0.36
21	27.37	0.00	21.66	0.00	16.18	0.00
22	29.62	0.00	24.95	0.00	20.47	0.00
23	28.56	0.00	23.11	0.00	17.88	0.00
24	25.50	0.00	21.35	0.00	17.36	0.00
25	24.43	0.07	19.51	0.07	14.77	0.35
26	24.62	0.00	19.95	0.00	15.47	0.00
27	25.43	0.00	20.51	0.00	15.77	0.29
28	25.37	0.00	19.66	0.00	14.18	0.00
29	25.31	0.30	20.90	0.30	16.66	2.38
30	22.18	0.00	16.22	0.00	10.48	0.00
31	24.24	0.00	19.06	0.00	14.07	0.00
MONTHLY TOTALS	815.43	2.02	646.92	2.02	484.67	5.53

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1975
FOR THE MONTH OF AUGUST
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	25.62	0.00	20.95	0.00	16.47	0.00
2	24.50	0.00	20.35	0.00	16.36	0.00
3	22.68	0.00	18.79	0.00	15.05	0.00
4	24.93	0.00	20.01	0.00	15.27	0.00
5	26.99	0.00	20.77	0.00	14.79	0.00
6	27.62	0.00	22.95	0.00	18.47	0.00
7	29.93	0.03	25.01	0.03	20.27	0.00
8	29.31	0.00	24.90	0.00	20.64	0.00
9	25.93	0.08	23.08	0.08	20.34	0.00
10	25.31	0.00	20.90	0.00	16.66	0.20
11	26.43	0.08	19.43	0.08	12.70	0.15
12	25.74	0.00	18.48	0.00	11.50	0.13
13	23.31	0.05	16.82	0.05	10.59	0.00
14	21.50	0.08	17.35	0.08	13.36	0.07
15	22.18	0.00	18.29	0.00	14.55	0.00
16	23.50	0.00	19.35	0.00	15.36	0.00
17	23.31	0.00	18.90	0.00	14.66	0.00
18	25.30	0.00	16.75	0.00	8.52	0.06
19	21.87	0.00	16.16	0.00	10.68	0.00
20	22.24	0.00	14.98	0.00	8.00	0.63
21	23.24	0.08	18.06	0.08	13.07	0.12
22	21.68	0.12	17.79	0.12	14.05	0.00
23	24.43	0.00	19.51	0.00	14.77	0.00
24	26.18	0.00	22.29	0.00	18.36	0.00
25	23.56	0.00	20.19	0.00	16.95	0.00
26	24.12	0.00	19.45	0.00	14.97	0.18
27	24.24	0.03	19.06	0.03	14.07	0.00
28	22.93	0.09	15.93	0.09	9.20	0.00
29	22.62	0.00	17.95	0.00	13.47	0.00
30	25.31	0.00	20.90	0.00	16.66	0.00
31	25.50	0.00	21.35	0.00	17.36	0.00
MONTHLY TOTALS	762.01	0.64	606.72	0.64	457.19	1.54

ORIGINAL PAGE 13
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1975
FOR THE MONTH OF SEPTEMBER
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	25.74	0.00	20.56	0.00	15.57	0.00
2	25.87	0.00	20.16	0.00	14.68	0.00
3	23.81	0.00	19.40	0.00	15.16	0.04
4	23.24	0.09	18.06	0.09	13.07	0.05
5	20.37	0.00	16.74	0.00	13.25	0.11
6	21.74	0.00	16.56	0.00	11.57	0.00
7	20.43	0.00	15.51	0.00	10.77	0.09
8	21.24	0.06	13.98	0.06	7.00	0.06
9	20.75	0.20	17.64	0.20	14.64	0.00
10	20.18	0.00	16.29	0.00	12.55	0.00
11	18.81	0.20	16.48	0.20	14.23	0.83
12	15.56	0.30	12.19	0.30	8.95	0.10
13	14.00	0.15	9.85	0.15	5.84	0.76
14	15.56	0.10	10.11	0.10	4.88	0.00
15	17.93	0.00	13.01	0.00	8.27	0.00
16	19.81	0.00	15.40	0.00	11.16	0.00
17	22.31	0.00	15.82	0.00	9.59	0.00
18	20.68	0.00	14.72	0.00	8.98	0.00
19	16.56	0.00	11.11	0.00	5.88	0.00
20	14.62	0.00	12.03	0.00	9.54	0.27
21	10.81	0.03	6.40	0.03	2.16	0.00
22	11.56	0.00	8.19	0.00	4.95	0.00
23	14.68	0.00	10.79	0.00	7.05	0.00
24	14.81	0.00	10.40	0.00	6.16	0.00
25	17.18	0.00	13.29	0.00	9.55	0.00
26	16.74	0.00	11.56	0.00	6.57	0.00
27	17.87	0.00	12.16	0.00	6.68	0.00
28	16.06	0.00	12.69	0.00	9.45	0.00
29	16.18	0.00	12.29	0.00	8.55	0.00
30	14.56	0.00	11.19	0.00	7.95	0.00
MONTHLY TOTALS	549.66	1.13	414.59	1.13	284.70	2.31

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1976
FOR THE MONTH OF APRIL
DEG. DAY = (THAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	6.06	0.00	0.61	0.00	0.00	0.00
2	9.74	0.00	4.56	0.00	0.00	0.00
3	10.56	0.02	7.19	0.05	3.36	0.08
4	8.24	0.00	3.06	0.00	0.00	0.00
5	3.93	0.14	0.00	0.34	0.00	0.53
6	0.00	0.02	0.00	0.00	0.00	0.00
7	4.68	0.00	0.00	0.00	0.00	0.00
8	7.12	0.00	2.45	0.00	0.00	0.00
9	9.06	0.00	3.61	0.00	0.00	0.00
10	10.31	0.00	3.82	0.00	0.00	0.00
11	12.12	0.00	5.38	0.00	0.00	0.00
12	9.99	0.30	3.77	0.41	0.00	0.51
13	5.68	0.11	0.00	0.26	0.00	0.40
14	4.93	0.25	0.00	0.59	0.00	0.92
15	1.99	0.23	0.00	0.40	0.00	0.56
16	0.74	0.17	0.00	0.39	0.00	0.61
17	0.00	0.25	0.00	0.35	0.00	0.45
18	0.00	0.09	0.00	0.22	0.00	0.35
19	4.31	0.11	0.00	0.02	0.00	0.00
20	3.99	0.00	0.00	0.00	0.00	0.00
21	7.36	0.00	0.00	0.00	0.00	0.00
22	8.74	0.00	1.48	0.00	0.00	0.00
23	9.68	0.00	1.64	0.00	0.00	0.00
24	8.18	0.00	0.14	0.00	0.00	0.00
25	8.68	0.00	0.64	0.00	0.00	0.00
26	8.43	0.00	1.43	0.00	0.00	0.00
27	10.80	0.00	2.25	0.00	0.00	0.00
28	11.18	0.00	3.14	0.00	0.00	0.00
29	10.93	0.00	3.93	0.00	0.00	0.00
30	7.55	0.00	0.04	0.00	0.00	0.00
MONTHLY TOTALS		1.69	49.15	3.03	3.36	4.41
		204.97				

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1976
FOR THE MONTH OF MAY
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	6.49	0.00	0.00	0.00	0.00	0.00
2	11.18	0.00	3.14	0.00	0.00	0.00
3	13.74	0.01	6.48	0.02	0.00	0.03
4	14.99	0.00	6.69	0.00	0.00	0.00
5	14.74	0.15	7.48	0.37	0.50	0.57
6	8.87	1.06	7.32	1.38	5.43	1.39
7	7.24	0.15	2.06	0.09	0.00	0.08
8	5.62	0.54	0.95	1.01	0.00	1.47
9	10.18	0.00	4.22	0.00	0.00	0.00
10	12.62	0.00	5.88	0.00	0.00	0.00
11	16.06	0.00	10.61	0.00	5.38	0.00
12	11.18	0.00	3.14	0.00	0.00	0.00
13	14.36	0.00	4.51	0.00	0.00	0.00
14	22.68	0.00	14.64	0.00	6.91	0.00
15	22.49	0.00	16.27	0.00	10.29	0.00
16	16.50	0.00	12.35	0.00	8.36	0.00
17	17.00	0.00	12.85	0.00	8.86	0.00
18	17.12	0.03	14.53	0.07	12.04	0.11
19	17.74	0.06	10.48	0.13	3.50	0.21
20	15.11	0.19	6.30	0.46	0.00	0.71
21	16.12	0.22	9.38	0.11	2.89	0.09
22	11.68	0.03	7.79	0.01	4.05	0.00
23	12.87	0.00	7.16	0.00	1.68	0.00
24	14.49	0.00	8.27	0.00	2.29	0.00
25	16.93	0.00	12.01	0.00	7.27	0.00
26	14.93	0.00	10.01	0.00	5.27	0.00
27	18.54	0.00	13.11	0.00	7.88	0.00
28	20.99	0.00	14.77	0.00	8.79	0.00
29	20.37	0.00	14.64	0.00	9.18	0.00
30	15.68	0.00	9.72	0.00	3.98	0.00
31	19.24	0.00	14.06	0.00	9.07	0.00
MONTHLY TOTALS		2.44	270.85	3.65	123.62	4.96
		457.78				

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1976
FOR THE MONTH OF JUNE
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A			ZONE B			ZONE C		
	DEGREE DAY DEG. F	PRECIP. INCHES	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	PRECIP. INCHES
1	18.62	0.00	0.00	11.88	0.00	0.00	5.39	0.00	0.00
2	20.43	0.00	0.00	15.51	0.00	0.00	10.77	0.00	0.00
3	21.37	0.00	0.00	15.66	0.00	0.00	10.18	0.00	0.00
4	21.99	0.00	0.00	15.77	0.00	0.00	9.79	0.00	0.00
5	22.12	0.00	0.00	15.38	0.00	0.00	8.89	0.00	0.00
6	21.49	0.00	0.00	15.27	0.00	0.00	9.29	0.17	0.12
7	19.31	0.00	0.00	12.82	0.00	0.00	6.59	0.00	0.00
8	20.12	0.28	0.28	13.38	0.28	0.28	6.89	0.09	0.00
9	22.17	0.00	0.00	14.59	0.00	0.00	7.11	0.00	0.00
10	24.12	0.00	0.00	17.38	0.00	0.00	10.89	0.00	0.00
11	22.37	0.00	0.00	14.59	0.00	0.00	7.11	0.00	0.00
12	15.81	0.00	0.00	11.40	0.00	0.00	7.16	0.00	0.00
13	16.62	0.00	0.00	9.88	0.00	0.00	3.39	0.00	0.00
14	18.50	0.00	0.00	14.35	0.00	0.00	10.36	0.00	0.00
15	13.31	0.00	0.00	8.90	0.00	0.00	4.66	0.00	0.00
16	19.12	0.00	0.00	12.38	0.00	0.00	5.89	0.00	0.00
17	20.62	0.00	0.00	13.88	0.00	0.00	7.39	0.00	0.00
18	18.81	0.00	0.00	14.40	0.00	0.00	10.16	0.00	0.00
19	20.00	0.00	0.00	15.85	0.00	0.00	11.86	0.00	0.00
20	23.11	0.00	0.00	14.30	0.00	0.00	5.82	0.00	0.00
21	25.30	0.00	0.00	14.67	0.00	0.00	4.45	0.03	0.03
22	23.87	0.07	0.07	16.09	0.07	0.07	8.61	0.00	0.00
23	17.49	0.03	0.03	11.27	0.03	0.03	5.29	0.00	0.00
24	15.68	0.00	0.00	11.79	0.00	0.00	8.05	0.00	0.00
25	18.05	0.00	0.00	10.54	0.00	0.00	3.31	0.00	0.00
26	24.43	0.00	0.00	17.43	0.00	0.00	10.70	0.00	0.00
27	25.49	0.00	0.00	19.27	0.00	0.00	13.29	0.00	0.00
28	27.74	0.00	0.00	22.56	0.00	0.00	17.52	0.00	0.00
29	24.87	0.00	0.00	21.24	0.00	0.00	17.75	0.05	0.05
30	24.43	0.29	0.29	19.51	0.29	0.29	14.77	0.73	0.73
MONTHLY TOTALS									
	627.54	0.67	0.67	441.91	0.67	0.67	263.41	1.19	1.19

ORIGINAL PAGE 16
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1976
FOR THE MONTH OF JULY
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	23.87	0.00	18.16	0.00	12.68	0.00
2	23.24	0.06	18.06	0.06	13.07	0.00
3	24.37	0.00	18.66	0.00	13.18	0.00
4	25.74	0.00	18.48	0.00	11.50	0.00
5	25.53	0.00	18.04	0.00	10.81	0.07
6	26.24	0.00	16.91	0.00	7.93	0.11
7	25.87	0.00	18.09	0.00	10.61	0.00
8	26.18	0.00	20.22	0.00	14.48	0.00
9	27.80	0.00	19.25	0.00	11.02	0.00
10	29.93	0.00	20.83	0.00	12.13	0.00
11	27.93	0.00	20.93	0.00	14.20	0.00
12	29.30	0.00	20.75	0.00	12.52	0.17
13	27.12	0.00	20.38	0.00	13.87	0.07
14	26.74	0.00	19.48	0.00	12.50	0.00
15	26.62	0.00	19.88	0.00	13.39	0.00
16	26.06	0.17	20.61	0.17	15.38	0.03
17	25.49	0.00	19.27	0.00	13.29	0.07
18	28.55	0.00	21.04	0.00	13.81	0.00
19	26.49	0.04	20.27	0.04	14.27	0.00
20	24.37	0.00	18.66	0.00	13.18	0.34
21	27.24	0.00	19.98	0.00	13.00	0.00
22	25.93	0.13	18.93	0.13	14.20	0.00
23	25.18	0.00	19.22	0.00	13.48	0.02
24	22.24	0.00	17.06	0.00	12.07	0.00
25	25.18	0.00	17.14	0.00	9.41	0.59
26	24.06	0.00	18.61	0.00	13.38	0.08
27	24.93	0.00	17.93	0.00	11.20	0.00
28	26.31	0.00	17.82	0.00	13.59	0.00
29	26.99	0.00	20.77	0.00	14.79	0.00
30	28.93	0.00	19.85	0.00	11.13	0.00
31	25.18	0.00	15.07	0.00	5.34	0.24
MONTHLY TOTALS						
	809.62	0.40	582.37	0.40	383.46	1.79

ORIGINAL PAGE 18
OF PCOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1976
FOR THE MONTH OF AUGUST
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	21.74	0.62	14.48	0.62	7.50	0.03
2	21.18	0.00	15.22	0.00	9.48	0.00
3	21.37	0.36	15.66	0.36	10.18	0.20
4	22.18	0.00	14.14	0.00	6.41	0.00
5	20.74	0.00	15.56	0.00	10.57	0.00
6	22.37	0.00	14.59	0.00	7.11	0.00
7	23.74	0.64	16.48	0.00	9.50	0.17
8	22.61	0.00	13.80	0.00	5.32	0.17
9	22.37	0.16	16.66	0.16	11.18	0.09
10	19.31	0.06	14.90	0.06	10.64	0.38
11	20.24	0.05	15.06	0.05	10.07	0.02
12	21.06	0.00	15.61	0.00	10.38	0.16
13	20.81	0.00	14.32	0.00	8.09	0.00
14	23.06	0.00	17.61	0.00	12.38	0.00
15	23.05	0.00	15.54	0.00	8.31	0.00
16	23.43	0.00	18.51	0.00	13.77	0.00
17	23.62	0.22	18.95	0.22	14.47	0.09
18	23.43	0.80	18.51	0.80	13.77	0.11
19	19.73	0.00	15.01	0.00	10.27	0.40
20	21.56	0.00	16.11	0.00	10.88	0.03
21	25.37	0.00	19.66	0.00	14.18	0.00
22	25.62	0.00	18.88	0.00	12.39	0.00
23	24.74	0.00	19.56	0.00	14.57	0.40
24	23.37	0.00	15.59	0.00	8.11	0.12
25	23.12	0.00	16.38	0.00	9.82	0.04
26	23.74	0.05	16.48	0.05	9.50	0.25
27	24.93	0.05	17.93	0.05	11.20	0.00
28	22.49	0.00	16.27	0.00	10.29	0.17
29	21.87	0.00	16.16	0.00	10.68	0.22
30	20.43	0.00	13.43	0.00	6.70	0.00
31	18.56	0.00	13.11	0.00	7.88	0.00
MONTHLY TOTALS	492.03	2.37	500.18	2.37	315.70	3.07

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1976
FOR THE MONTH OF SEPTEMBER
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A			ZONE B			ZONE C		
	DEGREE DAY DEG. F	PRECIP. INCHES		DEGREE DAY DEG. F	PRECIP. INCHES		DEGREE DAY DEG. F	PRECIP. INCHES	
1	19.06	0.00		15.69	0.00		12.45	0.00	
2	20.12	0.00		15.45	0.00		10.97	0.00	
3	22.05	0.00		14.54	0.00		7.31	0.00	
4	24.74	0.00		17.48	0.00		10.50	0.00	
5	23.05	0.00		15.54	0.00		8.31	0.00	
6	23.49	0.03		17.27	0.03		11.29	0.39	
7	17.55	0.18		7.96	0.18		0.00	0.05	
8	16.49	0.00		8.19	0.00		0.22	0.16	
9	16.43	0.00		7.35	0.00		0.00	0.25	
10	20.50	0.00		16.35	0.00		12.36	0.10	
11	18.74	0.00		11.48	0.00		4.50	0.05	
12	17.18	0.00		7.07	0.00		0.00	0.00	
13	17.36	0.00		7.51	0.00		0.00	0.00	
14	20.36	0.00		10.51	0.00		1.04	0.19	
15	20.81	0.18		14.32	0.18		8.09	0.00	
16	20.17	0.35		14.66	0.35		9.18	0.05	
17	20.56	0.00		15.11	0.00		9.88	0.00	
18	19.56	0.00		14.11	0.00		8.88	0.00	
19	18.12	0.00		13.45	0.00		8.97	0.00	
20	14.74	0.00		7.48	0.00		0.50	0.06	
21	15.62	0.04		8.88	0.04		2.39	0.28	
22	15.11	0.10		6.30	0.10		0.00	0.00	
23	14.18	0.00		6.14	0.00		0.00	0.00	
24	13.68	0.00		3.57	0.00		0.00	0.90	
25	12.18	0.32		2.07	0.32		0.00	1.65	
26	11.43	0.04		2.35	0.04		0.00	0.10	
27	5.93	0.38		1.01	0.38		0.00	0.07	
28	7.49	0.00		0.00	0.00		0.00	0.00	
29	9.99	0.00		3.77	0.00		0.00	0.00	
30	12.87	0.00		5.09	0.00		0.00	0.00	
MONTHLY TOTALS									
	509.75	1.62		290.71	1.62		126.82	4.30	

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1977
FOR THE MONTH OF APRIL
DEG. DAY = (THAX+THIN)/2.0 - 32.

DAY	ZONE A			ZONE B			ZONE C		
	DEGREE DAY DEG. F	PRECIP. INCHES	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	PRECIP. INCHES
1	0.00	0.38	0.81	0.00	0.32	0.81	0.00	1.23	0.00
2	0.00	0.14	0.32	0.00	0.08	0.32	0.00	0.50	0.00
3	0.00	0.03	0.08	0.00	0.00	0.08	0.00	0.13	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	2.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	5.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	11.37	0.00	0.00	5.66	0.00	0.00	0.18	0.00	0.00
8	14.99	0.00	0.00	8.77	0.00	0.00	2.79	0.00	0.00
9	14.87	0.00	0.00	9.16	0.00	0.00	3.68	0.00	0.00
10	15.24	0.27	0.36	10.06	0.36	0.36	4.88	0.45	0.45
11	10.80	0.01	0.03	2.25	0.03	0.03	0.00	0.04	0.04
12	6.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	8.37	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.00
14	9.43	0.00	0.00	4.51	0.00	0.00	0.00	0.00	0.00
15	8.31	0.00	0.00	3.90	0.00	0.00	0.00	0.00	0.00
16	8.62	0.01	0.00	1.88	0.00	0.00	0.00	0.00	0.00
17	13.12	0.00	0.00	8.45	0.00	0.00	3.97	0.00	0.00
18	14.74	0.00	0.00	9.56	0.00	0.00	4.57	0.00	0.00
19	12.06	0.27	0.65	6.61	0.65	0.65	1.38	1.02	1.02
20	3.74	0.26	0.38	0.00	0.38	0.38	0.00	0.49	0.49
21	6.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	10.18	0.00	0.00	2.14	0.00	0.00	0.00	0.00	0.00
23	13.87	0.00	0.00	8.16	0.00	0.00	2.68	0.00	0.00
24	12.06	0.01	0.03	6.61	0.03	0.03	1.38	0.04	0.04
25	10.37	0.01	0.00	6.74	0.00	0.00	3.25	0.00	0.00
26	11.74	0.00	0.00	4.48	0.00	0.00	0.00	0.00	0.00
27	14.74	0.00	0.00	9.56	0.00	0.00	4.57	0.00	0.00
28	12.37	0.04	0.01	8.74	0.01	0.01	5.25	0.00	0.00
29	13.56	0.00	0.00	8.11	0.00	0.00	2.88	0.00	0.00
30	15.05	0.00	0.00	7.54	0.00	0.00	0.31	0.00	0.00
MONTHLY TOTALS									
280.88			1.43	133.49	2.67		41.75	3.89	

ORIGINAL PAGE 10
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1977
FOR THE MONTH OF MAY
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	15.43	0.00	10.51	0.00	5.72	0.00
2	14.68	0.00	6.64	0.00	0.00	0.00
3	11.68	0.00	3.64	0.00	0.00	0.00
4	11.68	0.00	5.72	0.00	0.00	0.00
5	12.37	0.00	6.64	0.00	1.18	0.00
6	17.37	0.00	11.64	0.00	4.18	0.00
7	17.99	0.00	11.77	0.00	5.79	0.00
8	18.62	0.00	11.88	0.00	5.39	0.00
9	19.05	0.00	11.54	0.00	4.31	0.00
10	18.74	0.00	11.48	0.00	4.50	0.00
11	10.87	0.00	3.09	0.00	0.00	0.00
12	12.49	0.20	4.19	0.28	0.00	0.34
13	10.11	0.69	1.30	1.34	0.00	2.01
14	9.00	0.19	4.85	0.45	0.86	0.70
15	10.62	0.15	3.88	0.34	0.00	0.54
16	11.49	0.05	5.27	0.11	0.00	0.12
17	15.55	0.00	8.04	0.00	0.81	0.00
18	11.37	0.00	3.59	0.00	0.00	0.00
19	4.37	0.00	0.00	0.00	0.00	0.00
20	10.06	0.03	6.69	0.07	3.45	0.11
21	10.93	0.00	3.93	0.00	0.00	0.00
22	13.31	0.00	8.90	0.00	4.64	0.00
23	17.05	0.00	9.54	0.00	2.31	0.00
24	15.24	0.00	5.91	0.00	0.00	0.00
25	15.68	0.03	9.72	0.07	3.98	0.11
26	14.18	0.02	8.22	0.04	2.48	0.04
27	14.18	0.00	8.22	0.00	2.48	0.00
28	16.18	0.00	10.22	0.00	4.48	0.00
29	19.56	0.00	14.11	0.00	8.88	0.00
30	20.55	0.00	10.96	0.00	1.74	0.00
31	23.54	0.00	18.11	0.00	12.88	0.00
MONTHLY TOTALS	443.95	1.35	250.22	2.74	82.12	4.07

A SUMMARY OF MODEL DATA FOR THE YEAR 1977
FOR THE MONTH OF JUNE
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	25.12	0.00	18.38	0.00	11.87	0.00
2	23.43	0.00	16.43	0.00	9.70	0.00
3	23.49	0.00	17.27	0.00	11.29	0.16
4	24.50	0.00	20.35	0.00	16.34	0.00
5	25.74	0.00	18.48	0.00	11.50	0.00
6	25.31	0.00	18.82	0.00	12.59	0.04
7	25.49	0.00	19.27	0.00	13.29	0.16
8	22.37	0.00	14.59	0.00	7.11	0.00
9	24.93	0.35	20.01	0.35	15.27	0.18
10	21.31	0.00	14.82	0.00	8.52	0.00
11	22.93	0.00	18.01	0.00	13.27	0.00
12	23.06	0.00	17.61	0.00	12.38	0.00
13	25.62	0.00	18.88	0.00	12.39	0.00
14	25.06	0.00	19.61	0.00	14.38	0.00
15	26.37	0.00	20.66	0.00	15.18	0.00
16	26.60	0.00	20.72	0.00	14.98	0.00
17	30.55	0.00	23.04	0.00	15.81	0.00
18	25.62	0.00	18.88	0.00	12.39	0.00
19	23.05	0.00	15.54	0.00	5.31	0.00
20	24.37	0.00	18.66	0.00	13.18	0.00
21	22.37	0.00	16.66	0.00	11.18	0.00
22	23.74	0.00	14.48	0.00	9.50	0.00
23	23.37	0.05	15.59	0.05	8.11	0.39
24	22.68	0.00	18.79	0.00	15.05	0.04
25	23.18	0.00	17.22	0.00	11.48	0.04
26	26.24	0.00	21.04	0.00	14.07	0.10
27	26.81	0.00	20.32	0.00	14.09	0.00
28	22.18	0.00	19.14	0.00	11.41	0.00
29	26.12	0.28	21.45	0.28	16.97	0.00
30	25.49	0.00	19.27	0.00	13.29	0.22
MONTHLY TOTALS						
	742.16	0.68	556.02	0.68	377.02	1.33

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1977
FOR THE MONTH OF JULY
DEG. DAY = (TMAX-TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	27.06	0.03	21.61	0.03	16.38	0.00
2	28.68	0.00	22.72	0.00	16.98	0.00
3	27.81	0.00	21.32	0.00	15.09	0.00
4	28.24	0.24	20.98	0.24	14.00	0.47
5	24.31	0.05	19.90	0.05	15.66	0.41
6	26.62	0.22	21.95	0.22	17.47	0.02
7	25.81	0.00	19.32	0.00	13.09	0.00
8	25.74	0.00	20.56	0.00	15.57	0.00
9	26.12	0.00	21.45	0.00	16.97	0.00
10	26.43	0.00	19.43	0.00	12.20	0.00
11	27.24	0.00	22.06	0.00	17.07	0.00
12	26.56	0.00	21.11	0.00	15.88	0.04
13	31.55	0.26	24.04	0.26	16.81	0.10
14	25.50	0.00	21.35	0.00	17.36	0.18
15	27.87	0.00	22.16	0.00	16.68	0.15
16	28.12	0.00	23.45	0.00	18.97	0.10
17	31.49	0.00	25.27	0.00	19.29	0.06
18	29.18	0.14	23.22	0.14	17.48	0.00
19	31.31	0.00	24.82	0.00	18.52	0.02
20	27.37	0.00	19.59	0.00	12.11	0.45
21	25.50	0.33	21.35	0.33	17.36	0.32
22	25.87	0.05	20.16	0.05	14.68	0.28
23	25.99	0.04	19.77	0.04	13.79	0.01
24	25.37	0.22	19.66	0.22	14.18	0.05
25	26.56	0.00	21.11	0.00	15.88	1.22
26	27.12	0.03	22.45	0.03	17.97	0.60
27	26.24	0.00	21.06	0.00	16.07	0.05
28	27.06	0.00	21.61	0.00	16.38	0.14
29	26.87	0.00	21.16	0.00	15.68	0.00
30	30.74	0.00	25.56	0.00	20.57	0.00
31	28.99	0.00	22.77	0.00	16.79	0.00
MONTHLY TOTALS						
	849.30	1.61	473.01	1.61	503.48	6.67

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1977
FOR THE MONTH OF AUGUST
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A			ZONE B			ZONE C		
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F
1	27.50	0.00	23.35	0.00	19.34	0.00	19.34	0.00	19.34
2	29.37	0.00	23.66	0.00	18.18	0.00	18.18	0.00	18.18
3	28.37	0.00	22.64	0.00	17.18	0.00	17.18	0.00	17.18
4	28.68	0.00	22.72	0.00	16.98	0.00	16.98	0.00	16.98
5	30.06	0.19	26.69	0.19	23.45	0.09	23.45	0.09	23.45
6	30.43	0.00	25.51	0.00	20.77	0.00	20.77	0.00	20.77
7	31.31	0.00	24.92	0.00	18.59	0.00	18.59	0.00	18.59
8	32.31	0.00	27.90	0.00	23.66	0.00	23.66	0.00	23.66
9	29.93	0.03	22.93	0.03	16.20	0.00	16.20	0.00	16.20
10	27.06	0.00	21.61	0.00	16.38	0.02	16.38	0.02	16.38
11	25.62	0.00	20.95	0.00	16.47	0.03	16.47	0.03	16.47
12	28.12	0.00	23.45	0.00	18.97	0.04	18.97	0.04	18.97
13	28.56	0.00	23.11	0.00	17.88	0.03	17.88	0.03	17.88
14	26.24	0.00	18.98	0.00	12.00	0.00	12.00	0.00	12.00
15	26.18	0.30	22.29	0.30	18.55	1.85	18.55	1.85	18.55
16	27.62	0.00	20.88	0.00	14.39	0.02	14.39	0.02	14.39
17	26.81	0.25	22.40	0.25	18.16	0.28	18.16	0.28	18.16
18	27.56	0.36	22.11	0.36	16.88	0.90	16.88	0.90	16.88
19	24.12	0.05	19.45	0.05	14.97	0.02	14.97	0.02	14.97
20	24.74	0.50	19.56	0.50	14.57	0.57	14.57	0.57	14.57
21	24.50	0.00	20.35	0.00	16.34	0.00	16.34	0.00	16.34
22	26.56	0.00	21.11	0.00	15.88	0.43	15.88	0.43	15.88
23	27.12	0.13	22.45	0.13	17.97	0.01	17.97	0.01	17.97
24	28.24	0.00	23.06	0.00	18.07	0.05	18.07	0.05	18.07
25	27.93	0.00	23.01	0.00	18.27	0.14	18.27	0.14	18.27
26	26.18	0.00	20.22	0.00	14.48	0.00	14.48	0.00	14.48
27	28.99	0.00	22.77	0.00	14.79	0.00	14.79	0.00	14.79
28	21.37	0.00	17.74	0.00	14.25	0.00	14.25	0.00	14.25
29	24.24	0.00	19.04	0.00	14.07	0.00	14.07	0.00	14.07
30	25.43	0.00	20.51	0.00	15.77	0.00	15.77	0.00	15.77
31	26.49	0.00	20.27	0.00	14.29	0.00	14.29	0.00	14.29
MONTHLY TOTALS	847.63	1.81	685.59	1.81	529.78	4.48	529.78	4.48	529.78

ORIGINAL RECORD
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1977
FOR THE MONTH OF SEPTEMBER
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A			ZONE B			ZONE C		
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F
1	27.62	0.00	20.88	0.00	14.37	0.00	14.37	0.00	0.00
2	26.74	0.00	19.48	0.00	12.50	0.10	12.50	0.10	0.00
3	23.87	0.10	18.16	0.10	12.68	0.20	12.68	0.20	0.00
4	23.93	0.03	16.93	0.03	10.20	0.00	10.20	0.00	0.00
5	24.06	0.00	18.61	0.00	13.38	0.00	13.38	0.00	0.00
6	27.12	0.00	22.45	0.00	17.97	0.23	17.97	0.23	0.00
7	27.37	0.00	21.66	0.00	16.18	0.00	16.18	0.00	0.00
8	28.81	0.00	22.32	0.00	16.09	0.00	16.09	0.00	0.00
9	25.31	0.00	20.90	0.00	16.64	0.00	16.64	0.00	0.00
10	26.06	0.09	22.69	0.09	18.45	0.00	18.45	0.00	0.00
11	22.31	0.05	22.05	0.05	20.13	1.30	20.13	1.30	0.00
12	19.56	0.10	14.11	0.10	8.88	0.00	8.88	0.00	0.00
13	14.81	0.04	10.40	0.04	6.16	0.67	6.16	0.67	0.00
14	16.81	0.18	12.40	0.18	8.16	0.00	8.16	0.00	0.00
15	19.31	0.00	12.82	0.00	6.59	0.00	6.59	0.00	0.00
16	17.62	0.00	15.03	0.00	12.54	0.00	12.54	0.00	0.00
17	18.81	0.00	16.48	0.00	13.84	0.00	13.84	0.00	0.00
18	16.06	0.00	10.61	0.00	5.38	0.00	5.38	0.00	0.00
19	17.99	0.00	11.77	0.00	5.79	0.00	5.79	0.00	0.00
20	21.74	0.00	16.56	0.00	11.57	0.00	11.57	0.00	0.00
21	18.81	0.00	14.40	0.00	10.16	0.00	10.16	0.00	0.00
22	20.88	0.00	21.39	0.00	20.91	0.17	20.91	0.17	0.00
23	20.94	0.16	20.16	0.16	19.02	0.00	19.02	0.00	0.00
24	17.56	0.00	16.26	0.00	14.43	0.00	14.43	0.00	0.00
25	20.62	0.00	13.95	0.00	11.47	0.00	11.47	0.00	0.00
26	21.37	0.00	19.82	0.00	16.95	0.00	16.95	0.00	0.00
27	19.74	0.00	14.56	0.00	9.57	0.00	9.57	0.00	0.00
28	22.24	0.00	14.98	0.00	8.00	0.00	8.00	0.00	0.00
29	20.68	0.00	12.64	0.00	4.91	0.00	4.91	0.00	0.00
30	22.37	0.00	16.66	0.00	11.18	0.00	11.18	0.00	0.00
MONTHLY TOTALS	651.09	0.75	513.17	0.75	375.44	2.67	375.44	2.67	2.67

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1978
FOR THE MONTH OF APRIL
DEG. DAY = (TMAX+THIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	8.47	0.38	0.00	0.72	0.00	1.13
2	3.68	0.09	0.00	0.21	0.00	0.32
3	7.80	0.00	0.00	0.00	0.00	0.00
4	8.80	0.03	0.23	0.07	0.00	0.11
5	7.68	0.00	0.00	0.00	0.00	0.00
6	7.80	0.00	0.00	0.00	0.00	0.00
7	9.99	0.00	0.00	0.00	0.00	0.00
8	9.55	0.11	0.00	0.27	0.00	0.42
9	7.74	0.09	0.48	0.06	0.00	0.05
10	3.68	0.00	0.00	0.00	0.00	0.00
11	10.30	0.00	1.75	0.00	0.00	0.00
12	11.24	0.00	1.91	0.00	0.00	0.00
13	10.05	0.00	2.54	0.00	0.00	0.00
14	7.87	0.00	2.16	0.00	0.00	0.00
15	7.49	0.00	1.27	0.00	0.00	0.00
16	5.49	0.00	0.00	0.00	0.00	0.00
17	2.18	0.00	0.00	0.00	0.00	0.00
18	2.93	0.00	0.00	0.00	0.00	0.00
19	5.12	0.00	0.00	0.00	0.00	0.00
20	7.24	0.00	0.00	0.00	0.00	0.00
21	3.18	0.00	0.00	0.00	0.00	0.00
22	0.24	0.00	0.00	0.00	0.00	0.00
23	7.11	0.00	0.00	0.00	0.00	0.00
24	9.86	0.00	0.00	0.00	0.00	0.00
25	14.12	0.00	7.38	0.00	0.87	0.00
26	11.99	0.00	3.69	0.00	0.00	0.00
27	12.05	0.02	4.54	0.04	0.00	0.06
28	9.56	0.00	4.11	0.00	0.00	0.00
29	11.93	0.00	7.01	0.00	2.27	0.00
30	8.37	0.49	2.66	1.08	0.00	1.64
MONTHLY TOTALS						
	233.54	1.20	39.74	2.49	3.16	3.75

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1978
FOR THE MONTH OF MAY
DES. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A			ZONE B			ZONE C		
	DEGREE DAY	PRECIP.	INCHES	DEGREE DAY	PRECIP.	INCHES	DEGREE DAY	PRECIP.	INCHES
1	6.00	0.22	0.22	1.85	0.45	0.45	0.00	0.00	0.00
2	0.00	0.64	0.64	0.00	0.11	0.11	0.00	0.00	0.00
3	6.68	0.28	0.28	2.79	0.54	0.54	0.00	0.00	0.00
4	6.12	0.91	0.91	1.45	1.40	1.40	0.00	0.00	1.87
5	0.00	0.41	0.41	0.00	0.57	0.57	0.00	0.00	0.72
6	0.00	0.29	0.29	0.00	0.47	0.47	0.00	0.00	0.63
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	6.18	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00
9	8.68	0.00	0.00	2.72	0.00	0.00	0.00	0.00	0.00
10	12.74	0.00	0.00	5.48	0.00	0.00	0.00	0.00	0.00
11	12.80	0.00	0.00	4.25	0.00	0.00	0.00	0.00	0.00
12	16.43	0.00	0.00	7.35	0.00	0.00	0.00	0.00	0.00
13	16.68	0.00	0.00	10.72	0.00	0.00	4.98	0.00	0.00
14	19.49	0.00	0.00	11.19	0.00	0.00	3.22	0.00	0.00
15	22.30	0.00	0.00	13.75	0.00	0.00	5.52	0.00	0.00
16	20.30	0.00	0.00	11.75	0.00	0.00	3.52	0.00	0.00
17	17.30	0.00	0.00	8.75	0.00	0.00	0.52	0.00	0.00
18	10.49	0.00	0.00	2.19	0.00	0.00	0.00	0.00	0.00
19	14.93	0.04	0.04	7.93	0.09	0.09	1.20	0.14	0.14
20	15.24	0.19	0.19	7.98	0.45	0.45	1.00	0.69	0.69
21	13.99	0.01	0.01	7.77	0.00	0.00	1.79	0.00	0.00
22	17.43	0.00	0.00	12.51	0.00	0.00	7.27	0.00	0.00
23	18.05	0.00	0.00	10.54	0.00	0.00	3.31	0.00	0.00
24	15.56	0.00	0.00	10.11	0.00	0.00	4.88	0.00	0.00
25	13.93	0.00	0.00	4.93	0.00	0.00	0.20	0.00	0.00
26	18.55	0.00	0.00	11.04	0.00	0.00	3.81	0.00	0.00
27	16.68	0.00	0.00	10.72	0.00	0.00	4.98	0.00	0.00
28	13.62	0.00	0.00	6.88	0.00	0.00	0.39	0.00	0.00
29	14.81	0.00	0.00	8.32	0.00	0.00	2.09	0.00	0.00
30	19.56	0.00	0.00	14.11	0.00	0.00	8.88	0.00	0.00
31	16.68	0.00	0.00	8.64	0.00	0.00	0.91	0.00	0.00
MONTHLY TOTALS									
	391.23	2.99		207.94	4.08		58.97	5.53	

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1978
FOR THE MONTH OF JUNE
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	17.81	0.00	11.32	0.00	5.02	0.00
2	16.61	0.00	7.80	0.00	0.00	0.00
3	18.55	0.00	11.04	0.00	3.81	0.00
4	19.43	0.00	10.35	0.00	1.63	0.00
5	17.99	0.00	9.69	0.00	1.72	0.00
6	16.93	0.00	12.01	0.00	7.27	0.00
7	18.81	0.00	12.32	0.00	6.02	0.00
8	19.24	0.00	14.06	0.00	9.07	0.00
9	24.87	0.00	17.09	0.00	9.61	0.00
10	22.80	0.00	14.23	0.00	6.02	0.00
11	22.80	0.00	14.23	0.00	6.02	0.00
12	23.05	0.00	13.46	0.00	4.24	0.00
13	27.62	0.00	20.88	0.00	14.39	0.00
14	26.37	0.00	20.66	0.00	15.18	0.00
15	23.99	0.00	15.69	0.00	7.72	0.00
16	23.24	0.00	15.98	0.00	9.00	0.00
17	24.81	0.00	18.32	0.00	12.09	0.00
18	24.12	0.00	19.45	0.00	14.97	0.00
19	24.81	0.00	18.32	0.00	12.02	0.00
20	25.74	0.00	20.56	0.00	15.57	0.00
21	25.81	0.00	19.32	0.00	13.09	0.00
22	26.31	0.00	19.82	0.00	13.52	0.00
23	27.18	0.00	19.14	0.00	11.41	0.00
24	28.37	0.00	20.59	0.00	13.11	0.00
25	27.31	0.00	20.82	0.00	14.52	0.00
26	24.05	0.00	16.54	0.00	9.31	0.00
27	25.99	0.00	17.69	0.00	9.72	0.00
28	23.99	0.00	15.62	0.00	7.72	0.00
29	20.37	0.50	12.39	0.50	5.11	0.30
30	18.43	0.35	13.51	0.35	8.77	0.00
MONTHLY TOTALS						
687.38		0.85	473.24	0.85	267.99	0.46

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1978
FOR THE MONTH OF JULY
DEG. DAY = (THAX+THIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	23.12	0.00	16.38	0.00	7.87	0.00
2	25.55	0.00	18.04	0.00	10.81	0.00
3	26.74	0.00	19.48	0.00	12.50	0.00
4	25.31	0.00	18.82	0.00	12.57	0.00
5	23.05	0.00	15.54	0.00	8.31	0.00
6	22.80	0.00	14.25	0.00	6.02	0.00
7	24.24	0.00	16.98	0.00	10.00	0.00
8	27.31	0.00	20.82	0.00	14.59	0.00
9	25.43	0.05	16.35	0.05	7.43	0.02
10	26.93	0.17	17.93	0.17	13.20	0.17
11	25.68	0.05	19.72	0.05	13.98	0.11
12	24.68	0.04	18.72	0.04	12.98	0.42
13	26.62	0.01	17.88	0.01	13.37	0.01
14	32.18	0.00	24.14	0.00	14.41	0.00
15	28.37	0.00	22.64	0.00	17.18	0.00
16	28.68	0.10	25.79	0.10	22.05	0.00
17	23.87	0.02	20.24	0.02	15.77	0.05
18	26.18	0.00	20.22	0.00	14.48	0.10
19	29.24	0.01	21.98	0.01	15.00	0.00
20	27.87	0.27	24.24	0.27	20.75	0.00
21	25.93	0.00	23.08	0.00	20.34	0.00
22	24.62	0.25	17.95	0.25	15.47	0.08
23	27.12	0.00	24.53	0.00	22.04	0.00
24	28.12	0.00	23.45	0.00	18.97	0.00
25	28.68	0.00	20.44	0.00	12.81	0.03
26	27.55	0.00	17.96	0.00	8.74	0.00
27	29.18	0.00	23.22	0.00	17.48	0.01
28	28.24	0.00	24.04	0.00	18.07	0.00
29	29.87	0.20	24.16	0.20	18.68	0.00
30	27.31	0.00	20.82	0.00	14.59	0.00
31	27.93	0.00	23.01	0.00	18.27	0.04
MONTHLY TOTALS						
	830.40	1.17	638.08	1.17	434.11	1.04

ORIGINAL PAGE
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1978
FOR THE MONTH OF AUGUST
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	23.37	0.06	21.74	0.06	18.25	0.00
2	27.12	0.04	20.38	0.04	13.89	0.01
3	24.62	0.00	19.95	0.00	15.47	0.00
4	23.87	0.01	20.24	0.01	16.75	0.00
5	23.87	0.00	20.24	0.00	16.75	0.00
6	26.74	0.00	21.56	0.00	16.57	0.00
7	27.04	0.10	23.69	0.10	20.45	0.00
8	24.50	0.00	20.35	0.00	16.36	0.00
9	26.31	0.01	23.98	0.01	21.34	0.03
10	24.81	0.00	20.40	0.00	16.16	0.01
11	26.24	0.00	18.98	0.00	12.00	0.00
12	26.62	0.01	21.95	0.01	17.47	0.00
13	25.93	0.00	18.93	0.00	12.20	0.03
14	26.06	0.00	22.69	0.00	19.45	0.00
15	20.31	0.00	15.90	0.00	11.66	0.00
16	24.54	0.00	12.11	0.00	13.88	0.00
17	27.55	0.00	20.04	0.00	12.81	0.00
18	26.62	0.00	19.88	0.00	13.39	0.00
19	23.74	0.19	18.56	0.19	13.57	0.04
20	25.75	0.00	22.64	0.00	19.64	0.00
21	24.74	0.00	19.56	0.00	14.57	0.00
22	27.24	0.02	22.06	0.02	17.07	0.04
23	26.12	0.00	21.45	0.00	16.97	0.00
24	26.43	0.00	21.51	0.00	16.77	0.00
25	27.18	0.11	23.29	0.11	19.53	0.00
26	23.62	0.00	18.95	0.00	14.47	0.00
27	24.18	0.00	18.22	0.00	12.48	0.00
28	22.24	0.00	14.98	0.00	8.00	0.00
29	20.87	0.02	17.24	0.02	13.75	0.01
30	20.62	0.00	15.95	0.00	11.47	0.00
31	23.93	0.00	19.01	0.00	14.27	0.00
MONTHLY TOTALS						
	774.82	0.57	623.42	0.57	477.44	0.17

ORIGINAL PAGE 88
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1978
FOR THE MONTH OF SEPTEMBER
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	22.00	0.00	17.85	0.00	13.84	0.00
2	24.37	0.00	18.66	0.00	13.18	0.00
3	25.31	0.00	18.82	0.00	12.59	0.00
4	26.87	0.00	21.16	0.00	15.68	0.00
5	27.62	0.00	20.88	0.00	14.39	0.00
6	26.93	0.00	19.93	0.00	13.20	0.00
7	26.54	0.11	23.19	0.11	19.95	0.00
8	20.93	0.00	16.01	0.00	11.27	0.00
9	24.87	0.00	19.16	0.00	13.68	0.00
10	23.68	0.00	19.77	0.00	16.05	0.00
11	25.68	0.00	19.72	0.00	13.98	0.00
12	19.87	0.00	16.24	0.00	12.75	0.00
13	19.25	0.00	14.14	0.00	13.14	0.00
14	19.62	0.00	12.88	0.00	6.39	0.00
15	24.12	0.00	17.38	0.00	10.89	0.00
16	20.50	0.00	14.35	0.00	12.34	0.00
17	18.30	0.13	9.75	0.13	1.52	0.07
18	14.49	0.00	4.19	0.00	0.00	0.32
19	14.61	0.00	3.72	0.00	0.00	1.00
20	7.24	0.00	0.00	0.00	0.00	0.00
21	7.43	0.00	0.43	0.00	0.00	0.00
22	15.93	0.00	11.01	0.00	4.27	0.00
23	19.31	0.00	14.90	0.00	10.66	0.00
24	19.12	0.00	12.38	0.00	5.89	0.00
25	11.18	0.40	1.07	0.40	0.00	1.80
26	19.74	0.00	14.56	0.00	9.57	0.00
27	20.74	0.00	15.56	0.00	10.57	0.00
28	20.62	0.00	13.88	0.00	7.39	0.00
29	22.43	0.00	15.43	0.00	8.70	0.00
30	19.62	0.00	14.95	0.00	10.47	0.00
MONTHLY TOTALS		0.64	427.98	0.64	284.43	3.22

ORIGINAL FILED
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1979
FOR THE MONTH OF APRIL
DEB. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEB. F	PRECIP. INCHES	DEGREE DAY DEB. F	PRECIP. INCHES	DEGREE DAY DEB. F	PRECIP. INCHES
1	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00
5	4.81	0.00	0.40	0.00	0.00	0.00
6	10.62	0.00	8.03	0.00	4.34	0.00
7	9.56	0.00	4.11	0.00	0.00	0.00
8	10.12	0.00	3.38	0.00	0.00	0.00
9	5.18	0.17	0.00	0.39	0.00	0.61
10	0.00	0.49	0.00	1.14	0.00	1.81
11	0.00	0.45	0.00	1.06	0.00	1.66
12	0.00	0.33	0.00	0.78	0.00	1.21
13	0.00	0.00	0.00	0.00	0.00	0.00
14	9.05	0.00	1.54	0.00	0.00	0.00
15	13.55	0.00	6.04	0.00	0.00	0.00
16	18.87	0.00	15.24	0.00	10.78	0.00
17	17.12	0.00	10.38	0.00	3.89	0.00
18	13.74	0.11	8.54	0.25	3.57	0.39
19	7.30	0.07	0.00	0.17	0.00	0.24
20	6.37	0.00	0.66	0.00	0.00	0.00
21	10.68	0.00	2.64	0.00	0.00	0.00
22	12.93	0.00	1.35	0.00	0.00	0.00
23	16.18	0.00	10.22	0.00	4.48	0.00
24	13.43	0.00	6.43	0.00	0.00	0.00
25	13.55	0.00	6.04	0.00	0.00	0.00
26	10.87	0.06	3.09	0.13	0.00	0.21
27	11.24	0.00	3.98	0.00	0.00	0.00
28	12.55	0.00	2.94	0.00	0.00	0.00
29	9.24	0.00	1.98	0.00	0.00	0.00
30	7.43	0.00	0.00	0.00	0.00	0.00
MONTHLY TOTALS		1.67	99.02	3.95	26.69	4.15
		243.88				

ORIGINAL
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1979
FOR THE MONTH OF MAY
DES. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A			ZONE B			ZONE C		
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	
1	9.53	0.02	0.00	0.00	0.00	0.00	0.00	0.00	
2	7.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	5.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4	2.93	0.02	0.85	0.02	0.00	0.00	0.00	0.00	
5	15.30	0.00	6.75	0.00	0.00	0.00	0.00	0.00	
6	18.99	0.00	10.69	0.00	2.72	0.00	0.00	0.00	
7	15.61	1.02	6.80	2.43	0.00	3.79	0.00	0.00	
8	9.49	0.27	1.19	0.58	0.00	0.88	0.00	0.00	
9	0.24	0.24	0.00	0.54	0.00	0.88	0.00	0.00	
10	0.00	0.15	0.00	0.24	0.00	0.36	0.00	0.00	
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
12	5.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
13	11.68	0.00	1.57	0.00	0.00	0.00	0.00	0.00	
14	14.42	0.00	3.28	0.00	0.00	0.00	0.00	0.00	
15	13.55	0.00	1.88	0.00	0.00	0.00	0.00	0.00	
16	11.05	0.00	1.44	0.00	0.00	0.00	0.00	0.00	
17	15.31	0.00	8.82	0.00	2.59	0.00	0.00	0.00	
18	17.43	0.00	10.43	0.00	3.70	0.00	0.00	0.00	
19	19.24	0.20	11.98	0.46	5.00	0.70	0.00	0.00	
20	17.00	0.35	12.85	0.30	8.86	0.29	0.00	0.00	
21	15.37	0.19	11.74	0.32	8.25	0.45	0.00	0.00	
22	18.62	0.00	13.93	0.00	9.47	0.00	0.00	0.00	
23	19.31	0.05	12.82	0.07	4.59	0.09	0.00	0.00	
24	17.06	0.13	11.61	0.23	6.38	0.33	0.00	0.00	
25	17.49	0.27	11.27	0.48	5.29	1.04	0.00	0.00	
26	16.62	0.68	11.88	0.25	5.39	0.16	0.00	0.00	
27	20.24	0.04	12.98	0.09	6.00	0.14	0.00	0.00	
28	19.24	0.00	11.98	0.00	5.00	0.00	0.00	0.00	
29	20.37	0.00	12.59	0.00	5.11	0.00	0.00	0.00	
30	15.43	0.17	8.43	0.40	1.70	0.63	0.00	0.00	
31	15.68	0.00	9.72	0.00	3.98	0.00	0.00	0.00	
MONTHLY TOTALS									
	414.68	3.87	207.54	4.64	84.03	9.74			

ORIGINAL PAGE 10
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1979
FOR THE MONTH OF JUNE
DEG. DAY = (THAX+THIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	13.18	0.00	7.22	0.00	1.48	0.00
2	15.74	0.11	10.56	0.11	5.57	0.41
3	18.03	0.00	19.54	0.00	3.31	0.00
4	20.31	0.00	13.82	0.00	7.59	0.30
5	22.49	0.00	16.27	0.00	10.29	0.00
6	23.99	0.00	17.77	0.00	11.79	0.00
7	20.74	0.00	13.48	0.00	6.50	0.32
8	13.80	0.10	5.25	0.10	0.00	0.84
9	8.74	0.00	3.56	0.00	0.00	0.00
10	13.12	0.00	8.45	0.00	3.87	0.00
11	20.93	0.00	16.01	0.00	11.27	0.00
12	25.68	0.00	19.72	0.00	13.98	0.00
13	27.49	0.00	21.27	0.00	15.29	0.00
14	25.81	0.00	19.32	0.00	13.09	0.11
15	24.87	0.00	19.16	0.00	13.68	0.00
16	23.68	0.00	17.72	0.00	11.98	0.45
17	19.31	0.00	12.82	0.00	6.59	0.00
18	17.74	0.00	6.33	0.00	0.00	0.00
19	16.12	0.00	11.45	0.00	6.87	0.00
20	21.68	0.00	17.79	0.00	14.05	0.00
21	24.31	0.00	19.90	0.00	15.46	0.00
22	24.68	0.00	20.72	0.00	14.98	0.00
23	24.37	0.00	18.66	0.00	13.18	0.00
24	25.06	0.30	19.61	0.30	14.38	0.00
25	25.75	0.00	22.64	0.00	18.44	0.00
26	26.43	0.02	23.58	0.02	20.84	0.00
27	29.62	0.00	24.95	0.00	20.47	0.00
28	28.31	0.00	24.90	0.00	20.66	0.00
29	28.06	0.00	24.69	0.00	21.45	0.00
30	26.18	0.00	20.22	0.00	14.48	0.00
MONTHLY TOTALS						
	659.24	0.53	488.39	0.53	333.15	2.43

ORIGINAL PAGE
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1979
FOR THE MONTH OF JULY
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	25.87	0.00	20.16	0.00	14.48	0.00
2	24.93	0.00	20.01	0.00	15.27	0.00
3	25.37	0.00	19.66	0.00	14.18	0.05
4	23.93	0.00	19.01	0.00	14.27	0.00
5	24.81	0.00	20.40	0.00	16.16	0.00
6	25.31	0.10	20.90	0.10	16.66	0.00
7	25.24	0.00	20.06	0.00	15.07	0.00
8	27.81	0.00	21.32	0.00	15.09	0.00
9	27.93	0.00	23.01	0.00	18.27	0.00
10	29.73	0.00	25.01	0.00	20.27	0.00
11	29.68	0.00	25.79	0.00	22.05	0.00
12	31.00	0.00	26.85	0.00	22.86	0.05
13	30.31	0.00	23.82	0.00	17.59	0.03
14	29.68	0.02	23.72	0.02	17.98	0.06
15	28.62	0.00	21.88	0.00	15.39	0.07
16	26.31	0.00	19.82	0.00	13.59	0.00
17	28.37	0.15	22.66	0.15	17.18	0.00
18	25.31	0.00	22.98	0.00	20.73	0.00
19	23.12	0.00	22.53	0.00	20.04	0.00
20	25.50	0.00	21.35	0.00	17.36	0.01
21	27.43	0.10	22.51	0.10	17.77	0.07
22	26.56	0.04	21.11	0.04	15.88	0.00
23	27.12	0.00	22.45	0.00	17.97	0.00
24	29.93	0.20	25.01	0.20	20.27	0.00
25	27.75	0.20	24.64	0.20	21.64	0.00
26	27.87	0.00	24.24	0.00	20.75	0.00
27	28.43	0.00	25.58	0.00	22.84	0.00
28	28.04	0.10	24.69	0.10	21.45	1.10
29	28.12	0.17	25.53	0.17	23.04	0.02
30	28.31	0.00	23.90	0.00	19.66	0.01
31	24.62	0.00	19.95	0.00	15.47	0.00
MONTHLY TOTALS						
	845.21	1.08	700.53	1.08	561.44	1.47

ORIGINAL PAGE
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1979
FOR THE MONTH OF AUGUST
DEG. DAY = (THAX+THIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	24.81	0.00	20.90	0.00	16.14	0.00
2	27.56	0.00	22.11	0.00	16.88	0.00
3	26.37	0.00	20.66	0.00	15.18	0.00
4	27.24	0.00	19.98	0.00	13.00	0.00
5	28.62	0.00	21.88	0.00	15.39	0.00
6	29.87	0.00	22.09	0.00	14.61	0.00
7	28.43	0.00	21.43	0.00	14.70	0.00
8	27.61	0.00	18.80	0.00	10.32	0.33
9	25.18	0.08	17.14	0.08	9.41	0.11
10	24.74	0.22	17.48	0.22	10.50	0.17
11	23.81	0.00	17.32	0.00	11.09	1.33
12	25.61	0.02	16.80	0.02	8.32	0.78
13	22.37	0.03	16.66	0.03	11.18	0.32
14	23.18	0.51	15.14	0.51	7.41	0.44
15	19.74	0.44	14.56	0.44	9.57	0.60
16	20.68	0.03	12.64	0.03	4.91	0.11
17	20.62	0.01	15.95	0.01	11.47	0.00
18	18.18	0.08	14.29	0.08	10.55	0.00
19	17.62	0.00	12.95	0.00	8.67	0.00
20	17.49	0.00	11.27	0.00	5.29	0.00
21	17.87	0.00	12.16	0.00	4.68	0.00
22	22.62	0.00	12.95	0.00	13.67	0.00
23	23.81	0.00	19.40	0.00	15.16	0.00
24	23.68	0.00	19.79	0.00	16.05	0.00
25	21.62	0.00	14.95	0.00	12.47	0.10
26	22.68	0.23	16.72	0.23	10.98	0.00
27	20.37	0.00	12.59	0.00	8.11	0.00
28	24.12	0.00	17.38	0.00	10.89	0.00
29	22.62	0.00	15.88	0.00	9.39	0.00
30	22.24	0.10	14.98	0.10	8.00	0.00
31	23.62	0.00	18.95	0.00	14.47	0.00
MONTHLY TOTALS						
	724.96	1.75	532.14	1.75	347.11	4.28

ORIGINAL PAGE 13
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1979
FOR THE MONTH OF SEPTEMBER
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	26.06	0.00	20.61	0.00	15.38	0.00
2	23.62	0.00	16.88	0.00	10.39	0.00
3	25.43	0.00	20.51	0.00	15.77	0.00
4	27.43	0.00	22.51	0.00	17.72	0.00
5	25.87	0.00	20.16	0.00	14.68	0.00
6	27.56	0.00	22.11	0.00	16.88	0.00
7	27.74	0.00	22.56	0.00	17.57	0.00
8	27.37	0.00	21.66	0.00	16.18	0.00
9	25.99	0.00	19.77	0.00	13.79	0.00
10	28.93	0.00	24.01	0.00	19.27	0.00
11	26.93	0.01	22.01	0.01	17.27	0.00
12	25.81	0.02	21.40	0.02	17.14	0.00
13	18.68	0.00	14.78	0.00	11.05	0.00
14	15.62	0.31	15.11	0.31	14.41	0.42
15	13.37	0.00	9.74	0.00	6.25	0.00
16	17.54	0.00	14.12	0.00	10.95	0.00
17	20.00	0.00	15.85	0.00	11.86	0.00
18	21.04	0.00	17.49	0.00	14.45	0.00
19	17.37	0.00	15.74	0.00	12.25	0.00
20	23.43	0.00	16.43	0.00	9.70	1.18
21	18.68	0.13	14.79	0.13	11.05	0.00
22	18.37	0.00	14.74	0.00	11.25	0.00
23	21.24	0.00	16.04	0.00	11.07	0.00
24	21.56	0.00	16.11	0.00	10.88	0.00
25	23.04	0.00	17.61	0.00	12.38	0.00
26	21.50	0.00	17.35	0.00	13.36	0.00
27	20.31	0.00	15.90	0.00	11.44	0.00
28	20.31	0.00	17.78	0.00	15.73	0.00
29	20.50	0.00	16.35	0.00	12.36	0.00
30	22.43	0.00	19.58	0.00	16.84	0.00
MONTHLY TOTALS		675.78	540.19	0.47	409.61	1.60

ORIGINAL PAGE 10
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1980
FOR THE MONTH OF APRIL
DEG. DAY = (THAX+THIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	0.00	0.41	0.00	0.98	0.00	1.53
2	0.00	0.49	0.00	0.58	0.00	0.67
3	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00
5	2.24	0.08	0.00	0.18	0.00	0.28
6	2.87	0.04	0.00	0.09	0.00	0.14
7	0.00	0.04	0.00	0.09	0.00	0.14
8	0.00	0.00	0.00	0.00	0.00	0.00
9	0.55	0.08	0.00	0.18	0.00	0.28
10	5.68	0.00	0.00	0.00	0.00	0.00
11	0.43	0.35	0.00	0.47	0.00	0.59
12	0.00	0.00	0.00	0.00	0.00	0.00
13	0.00	0.08	0.00	0.18	0.00	0.28
14	4.30	0.00	0.00	0.00	0.00	0.00
15	8.05	0.00	0.54	0.00	0.00	0.00
16	7.37	0.00	0.00	0.00	0.00	0.00
17	9.18	0.00	1.14	0.00	0.00	0.00
18	11.61	0.00	2.80	0.00	0.00	0.00
19	13.68	0.00	5.64	0.00	0.00	0.00
20	16.05	0.00	8.54	0.00	1.31	0.00
21	16.49	0.00	10.27	0.00	4.29	0.00
22	15.93	0.27	8.93	0.43	2.20	0.97
23	11.49	0.23	5.27	0.54	0.00	0.84
24	5.49	0.78	0.00	0.63	0.00	0.60
25	4.75	0.30	5.79	0.72	5.80	1.11
26	2.50	0.13	0.42	0.19	0.00	0.25
27	8.81	0.00	2.32	0.00	0.00	0.00
28	11.68	0.11	5.72	0.27	0.00	0.42
29	13.06	0.04	7.61	0.09	2.38	0.14
30	8.68	0.22	2.72	0.29	0.00	0.35
MONTHLY TOTALS						
	180.89	3.62	67.71	6.09	15.97	8.59

ORIGINAL PAGE
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1960
FOR THE MONTH OF MAY
DEG. DAY = (TMAX+THIN)/2.0 - 32.

DAY	ZONE A			ZONE B			ZONE C		
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	
1	5.18	0.75	1.29	0.38	0.00	0.30	0.00	0.30	
2	9.74	0.06	2.48	0.09	0.00	0.13	0.00	0.13	
3	12.81	0.30	4.32	0.72	0.09	1.11	0.09	1.11	
4	9.68	0.12	5.79	0.10	0.10	0.10	2.05	0.10	
5	13.62	0.10	6.88	0.02	0.02	0.00	0.39	0.00	
6	14.61	0.18	5.80	0.36	0.00	0.54	0.00	0.54	
7	14.99	0.46	8.77	0.66	2.79	0.85	2.79	0.85	
8	13.99	0.04	7.77	0.01	1.79	0.00	1.79	0.00	
9	10.37	0.00	6.74	0.00	3.25	0.00	3.25	0.00	
10	14.00	0.04	9.85	0.09	5.86	0.14	5.86	0.14	
11	16.74	0.11	11.56	0.27	6.57	0.42	6.57	0.42	
12	5.18	0.00	1.29	0.00	0.00	0.00	0.00	0.00	
13	5.81	0.00	0.60	0.00	0.00	0.00	0.00	0.00	
14	10.75	0.15	7.64	0.36	4.64	0.56	4.64	0.56	
15	6.43	0.61	1.51	0.43	0.00	0.40	0.00	0.40	
16	9.24	0.17	4.06	0.11	0.00	0.10	0.00	0.10	
17	11.06	0.11	7.69	0.27	4.45	0.42	4.45	0.42	
18	8.56	0.08	3.11	0.18	0.00	0.28	0.00	0.28	
19	13.93	0.00	4.93	0.00	0.20	0.00	0.20	0.00	
20	18.87	0.00	11.09	0.00	3.61	0.00	3.61	0.00	
21	19.31	0.00	12.82	0.00	6.59	0.00	6.59	0.00	
22	21.05	0.11	13.54	0.27	6.31	0.42	6.31	0.42	
23	17.05	0.00	9.54	0.00	2.31	0.00	2.31	0.00	
24	15.49	0.00	7.19	0.00	0.00	0.00	0.00	0.00	
25	5.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
26	10.93	0.00	3.93	0.00	0.00	0.00	0.00	0.00	
27	15.05	0.00	7.54	0.00	0.31	0.00	0.31	0.00	
28	14.68	0.00	6.64	0.00	0.00	0.00	0.00	0.00	
29	15.05	0.00	7.54	0.00	0.31	0.00	0.31	0.00	
30	14.18	0.00	6.14	0.00	0.00	0.00	0.00	0.00	
31	14.55	0.00	7.04	0.00	0.00	0.00	0.00	0.00	
MONTHLY TOTALS									
	368.84	1.18	198.48	4.31	51.51	5.76			

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1980
FOR THE MONTH OF JUNE
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A			ZONE B			ZONE C		
	DEGREE DEG. F	DAY	PRECIP. INCHES	DEGREE DEG. F	DAY	PRECIP. INCHES	DEGREE DEG. F	DAY	PRECIP. INCHES
1	13.37		0.00	5.59		0.00	0.00		0.00
2	13.74		0.00	6.48		0.00	0.00		0.00
3	17.68		0.00	9.64		0.00	1.91		0.00
4	18.62		0.00	11.88		0.00	5.39		0.00
5	20.55		0.00	13.04		0.00	5.81		0.00
6	23.93		0.00	14.85		0.00	6.13		0.00
7	21.05		0.00	13.54		0.00	6.31		0.00
8	24.12		0.00	19.45		0.00	14.97		0.00
9	27.81		0.00	23.40		0.00	19.14		0.00
10	25.18		0.00	19.22		0.00	13.48		0.00
11	24.37		0.00	18.66		0.00	13.18		0.00
12	22.74		0.00	15.48		0.00	8.50		0.00
13	22.31		0.00	15.82		0.00	9.59		0.10
14	22.24		0.00	14.98		0.00	8.00		0.00
15	19.99		0.00	11.69		0.00	3.72		0.00
16	21.55		0.00	14.04		0.00	6.81		0.00
17	26.24		0.00	18.98		0.00	12.00		0.00
18	25.74		0.00	18.48		0.00	11.50		0.00
19	27.04		0.00	21.41		0.00	14.38		0.00
20	23.99		0.00	15.69		0.00	7.72		0.00
21	26.31		0.00	19.82		0.00	13.59		0.00
22	27.05		0.00	19.54		0.00	12.31		0.00
23	26.55		0.00	19.04		0.00	11.81		0.00
24	29.49		0.00	21.19		0.00	13.22		0.00
25	29.55		0.00	22.04		0.00	14.81		0.00
26	31.12		0.00	24.38		0.00	17.89		0.00
27	31.74		0.00	24.48		0.00	17.50		0.00
28	28.62		0.00	21.88		0.00	15.39		0.00
29	29.24		0.00	24.06		0.00	19.07		0.00
30	35.12		0.00	30.45		0.00	25.97		0.00
MONTHLY TOTALS			0.00	529.41		0.00	332.11		0.10
737.07									

ORIGINAL PAGE 1
OF POOR QUALITY

4 SUMMARY OF MODEL DATA FOR THE YEAR 1980

FOR THE MONTH OF JULY

DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A			ZONE B			ZONE C		
	DEGREE DAY DEG. F	PRECIP. INCHES	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	PRECIP. INCHES
1	31.06	0.00	0.00	25.61	0.00	0.00	20.38	0.00	0.00
2	29.56	0.00	0.00	24.11	0.00	0.00	18.88	0.00	0.00
3	27.24	0.00	0.00	19.98	0.00	0.00	13.00	0.00	0.00
4	28.62	0.00	0.00	21.88	0.00	0.00	15.39	0.00	0.00
5	29.30	0.00	0.00	20.75	0.00	0.00	12.52	0.00	0.00
6	29.74	0.00	0.00	22.48	0.00	0.00	15.50	0.00	0.00
7	29.37	0.33	0.33	23.46	0.33	0.33	18.18	0.10	0.10
8	29.68	0.00	0.00	23.72	0.00	0.00	17.98	0.00	0.00
9	31.43	0.00	0.00	24.43	0.00	0.00	17.70	0.00	0.00
10	33.68	0.00	0.00	27.72	0.00	0.00	21.98	0.00	0.00
11	32.24	0.00	0.00	27.06	0.00	0.00	22.07	0.00	0.00
12	32.56	0.00	0.00	27.11	0.00	0.00	21.88	0.00	0.00
13	30.37	0.09	0.09	24.66	0.09	0.09	19.18	0.20	0.20
14	28.18	0.00	0.00	22.22	0.00	0.00	16.48	0.00	0.00
15	27.81	0.00	0.00	21.32	0.00	0.00	15.09	0.00	0.00
16	30.43	0.00	0.00	23.43	0.00	0.00	14.70	0.00	0.00
17	30.74	0.00	0.00	23.48	0.00	0.00	16.50	0.00	0.00
18	31.81	0.00	0.00	25.32	0.00	0.00	19.09	0.00	0.00
19	33.05	0.00	0.00	25.54	0.00	0.00	18.31	0.10	0.10
20	31.24	0.00	0.00	26.06	0.00	0.00	21.07	0.00	0.00
21	31.43	0.00	0.00	26.51	0.00	0.00	21.77	0.00	0.00
22	31.99	0.02	0.02	23.69	0.02	0.02	15.22	0.00	0.00
23	27.56	0.00	0.00	22.11	0.00	0.00	16.88	0.00	0.00
24	27.99	0.00	0.00	21.77	0.00	0.00	15.79	0.00	0.00
25	28.54	0.02	0.02	25.19	0.02	0.02	21.95	0.00	0.00
26	29.93	0.00	0.00	25.01	0.00	0.00	20.27	0.00	0.00
27	30.49	0.00	0.00	24.27	0.00	0.00	18.29	0.00	0.00
28	30.12	0.00	0.00	25.45	0.00	0.00	20.97	0.00	0.00
29	33.62	0.00	0.00	31.03	0.00	0.00	28.54	0.00	0.00
30	31.18	0.03	0.03	25.22	0.03	0.03	19.48	0.00	0.00
31	32.24	0.00	0.00	22.91	0.00	0.00	13.93	0.20	0.20
MONTHLY TOTALS									
943.22			0.49	753.71	0.49	0.49	571.47	0.60	0.60

ORIGINAL PAGE IS
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1980

FOR THE MONTH OF AUGUST

DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A			ZONE B			ZONE C		
	DEGREE DAY DEG. F	PRECIP. INCHES	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	PRECIP. INCHES
1	30.12	0.02	0.02	23.38	0.02	0.02	14.89	0.30	0.30
2	32.87	0.13	0.13	27.16	0.13	0.13	21.68	0.00	0.00
3	30.31	0.05	0.05	30.05	0.05	0.05	29.80	0.00	0.00
4	31.56	0.00	0.00	26.11	0.00	0.00	20.88	0.60	0.60
5	27.75	0.09	0.09	24.64	0.09	0.09	21.64	0.20	0.20
6	30.81	0.00	0.00	26.40	0.00	0.00	22.16	0.00	0.00
7	32.50	0.00	0.00	28.35	0.00	0.00	24.36	0.30	0.30
8	30.74	0.11	0.11	25.56	0.11	0.11	20.57	0.45	0.45
9	29.12	0.00	0.00	24.45	0.00	0.00	19.97	0.00	0.00
10	31.18	0.00	0.00	27.29	0.00	0.00	23.55	0.35	0.35
11	29.18	0.03	0.03	23.22	0.03	0.03	17.48	0.00	0.00
12	24.31	0.00	0.00	19.90	0.00	0.00	15.66	0.10	0.10
13	25.62	0.00	0.00	20.95	0.00	0.00	16.47	0.30	0.30
14	26.81	0.01	0.01	20.32	0.01	0.01	14.09	0.60	0.60
15	28.06	0.00	0.00	22.61	0.00	0.00	17.38	0.00	0.00
16	25.81	0.00	0.00	23.48	0.00	0.00	21.23	0.00	0.00
17	24.93	0.00	0.00	20.01	0.00	0.00	15.27	0.25	0.25
18	25.56	0.00	0.00	20.11	0.00	0.00	14.88	0.00	0.00
19	25.37	0.00	0.00	17.59	0.00	0.00	10.11	0.00	0.00
20	21.62	0.00	0.00	14.88	0.00	0.00	8.39	0.00	0.00
21	22.43	0.00	0.00	15.43	0.00	0.00	8.70	0.00	0.00
22	22.87	0.12	0.12	15.02	0.12	0.12	7.61	1.85	1.85
23	24.31	0.42	0.42	17.82	0.42	0.42	11.59	1.00	1.00
24	21.18	0.35	0.35	13.14	0.35	0.35	5.41	0.95	0.95
25	23.99	0.12	0.12	15.48	0.12	0.12	7.72	0.00	0.00
26	23.75	0.00	0.00	20.64	0.00	0.00	17.64	0.00	0.00
27	21.62	0.00	0.00	16.95	0.00	0.00	12.47	0.00	0.00
28	22.31	0.00	0.00	17.90	0.00	0.00	13.66	0.00	0.00
29	23.50	0.00	0.00	19.35	0.00	0.00	15.36	0.00	0.00
30	22.06	0.00	0.00	18.69	0.00	0.00	15.25	0.00	0.00
31	22.18	0.00	0.00	18.28	0.00	0.00	14.36	0.00	0.00
MONTHLY TOTALS	814.38	1.45	1.45	655.46	1.45	1.45	502.24	7.25	7.25

ORIGINAL PAGE 13
OF POOR QUALITY

A SUMMARY OF MODEL DATA FOR THE YEAR 1980
FOR THE MONTH OF SEPTEMBER
DEG. DAY = (TMAX+TMIN)/2.0 - 32.

DAY	ZONE A		ZONE B		ZONE C	
	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES	DEGREE DAY DEG. F	PRECIP. INCHES
1	22.12	0.00	15.38	0.00	8.89	0.00
2	24.12	0.00	19.45	0.00	14.97	0.00
3	23.49	0.00	17.27	0.00	11.29	0.00
4	25.12	0.00	18.38	0.00	11.89	0.00
5	25.81	0.00	19.32	0.00	13.09	0.00
6	22.56	0.00	17.11	0.00	11.88	0.50
7	22.74	0.00	22.56	0.00	12.57	0.00
8	26.68	0.04	22.79	0.04	19.05	0.50
9	21.18	0.08	17.29	0.08	13.55	1.00
10	22.74	0.23	17.56	0.23	12.57	1.40
11	20.05	0.08	12.54	0.08	5.31	0.00
12	18.49	0.00	12.27	0.00	6.29	0.00
13	19.24	0.00	14.56	0.00	9.57	0.00
14	22.24	0.03	17.06	0.03	12.07	0.00
15	22.99	0.00	16.77	0.00	10.79	0.00
16	23.87	0.00	18.16	0.00	12.68	0.00
17	22.80	0.00	14.25	0.00	6.02	0.00
18	21.49	0.00	15.27	0.00	9.29	0.00
19	22.49	0.00	16.27	0.00	10.29	0.00
20	20.31	0.00	13.82	0.00	7.59	0.00
21	17.62	0.00	10.86	0.00	4.39	0.00
22	15.24	0.00	7.98	0.00	1.00	0.00
23	15.49	0.00	9.27	0.00	3.29	0.00
24	16.24	0.00	8.98	0.00	2.00	0.00
25	16.37	0.00	10.66	0.00	5.18	0.00
26	17.87	0.00	14.24	0.00	10.75	0.00
27	19.62	0.00	14.95	0.00	10.47	0.00
28	19.12	0.00	12.38	0.00	5.89	0.00
29	21.99	0.00	15.77	0.00	9.79	0.00
30	22.74	0.00	15.48	0.00	8.50	0.00
MONTHLY TOTALS		0.46	458.49	0.46	285.93	3.40
638.35						

APPENDIX F

**Rio Grande River near Del Norte Model Runs
1973-1979
With Variable Routing**

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1973 RUN OF MODEL MADE 10/ 6/81

DAILY CLIMATOLOGICAL DATA FOR ZONE 1

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.08	1.000	4.55	0.04	0.520	15.24	0.19	0.000	31.43	0.00	0.000	23.00	0.00	0.000	18.87	0.00	0.000
2	0.00	0.23	1.000	6.05	0.02	0.475	10.93	0.02	0.000	30.81	0.00	0.000	23.87	0.00	0.000	18.81	0.00	0.000
3	0.00	0.00	1.000	7.68	0.00	0.432	10.93	0.00	0.000	30.56	0.00	0.000	24.06	0.13	0.000	17.81	0.00	0.000
4	0.00	0.00	1.000	13.56	0.00	0.395	13.18	0.13	0.000	31.24	0.00	0.000	23.93	0.00	0.000	20.00	0.00	0.000
5	0.00	0.00	1.000	12.31	0.16	0.355	11.18	0.00	0.000	31.31	0.00	0.000	28.31	0.00	0.000	21.12	0.00	0.000
6	2.68	0.00	1.000	4.99	0.05	0.320	19.37	0.00	0.000	31.62	0.00	0.000	24.18	0.02	0.000	23.12	0.00	0.000
7	0.00	0.28	1.000	9.11	0.00	0.295	22.56	0.00	0.000	28.43	0.00	0.000	22.31	0.01	0.000	24.25	0.00	0.000
8	0.00	0.06	1.000	12.11	0.00	0.250	26.68	0.00	0.000	29.75	0.00	0.000	25.74	0.00	0.000	22.12	0.00	0.000
9	0.00	0.00	1.000	15.24	0.00	0.215	26.93	0.00	0.000	27.62	0.08	0.000	25.81	0.00	0.000	20.18	0.00	0.000
10	0.00	0.00	1.000	20.74	0.00	0.190	28.31	0.00	0.000	26.68	0.03	0.000	28.18	0.00	0.000	18.87	0.11	0.000
11	2.93	0.00	0.997	22.81	0.00	0.160	27.31	0.00	0.000	27.24	0.00	0.000	25.43	0.00	0.000	17.37	0.14	0.000
12	4.18	0.03	0.989	18.62	0.01	0.145	24.81	0.00	0.000	29.31	0.00	0.000	26.12	0.01	0.000	17.50	0.00	0.000
13	6.30	0.00	0.977	13.87	0.18	0.130	22.43	0.03	0.000	25.50	0.00	0.000	29.37	0.00	0.000	21.62	0.00	0.000
14	5.12	0.10	0.965	13.31	0.01	0.113	16.68	0.00	0.000	22.93	0.10	0.000	26.19	0.02	0.000	21.12	0.00	0.000
15	0.00	0.02	0.952	12.74	0.01	0.099	20.68	0.00	0.000	23.81	0.27	0.000	27.12	0.00	0.000	21.43	0.00	0.000
16	0.00	0.00	0.939	17.43	0.00	0.088	17.81	0.00	0.000	25.06	0.00	0.000	27.81	0.00	0.000	20.06	0.00	0.000
17	4.24	0.10	0.925	17.37	0.00	0.073	17.50	0.00	0.000	22.87	0.00	0.000	29.18	0.00	0.000	20.18	0.00	0.000
18	2.49	0.27	0.910	25.68	0.00	0.062	21.81	0.00	0.000	21.37	1.10	0.000	28.50	0.00	0.000	21.37	0.00	0.000
19	0.00	0.14	0.893	22.31	0.00	0.051	12.62	0.00	0.000	24.00	0.00	0.000	30.50	0.00	0.000	20.06	0.00	0.000
20	0.00	0.03	0.877	18.37	0.00	0.041	16.87	0.00	0.000	20.37	0.00	0.000	25.24	0.00	0.000	21.49	0.00	0.000
21	0.00	0.00	0.860	17.87	0.05	0.032	19.43	0.00	0.000	20.56	0.00	0.000	24.31	0.05	0.000	21.37	0.00	0.000
22	3.35	0.00	0.840	9.55	0.08	0.023	22.06	0.00	0.000	18.19	0.00	0.000	25.81	0.18	0.000	19.43	0.00	0.000
23	8.37	0.00	0.810	14.24	0.01	0.015	26.06	0.00	0.000	23.37	0.00	0.000	24.49	0.00	0.000	14.61	0.00	0.000
24	7.68	0.00	0.785	17.05	0.00	0.008	26.12	0.00	0.000	25.62	0.00	0.000	26.81	0.00	0.000	9.87	0.00	0.000
25	8.68	0.00	0.760	16.55	0.44	0.000	26.74	0.00	0.000	24.18	0.00	0.000	24.43	0.00	0.000	8.62	0.05	0.000
26	7.74	0.00	0.735	11.43	0.12	0.000	31.74	0.00	0.000	23.00	0.00	0.000	24.18	0.26	0.000	6.81	0.11	0.000
27	10.43	0.00	0.700	6.68	0.00	0.000	29.81	0.00	0.000	21.87	0.00	0.000	25.06	0.00	0.000	8.31	0.04	0.000
28	12.37	0.00	0.655	14.74	0.00	0.000	29.12	0.18	0.000	22.87	0.00	0.000	25.43	0.05	0.000	10.75	0.00	0.000
29	13.43	0.00	0.615	17.49	0.00	0.000	28.56	0.00	0.000	25.43	0.00	0.000	19.93	0.00	0.000	15.68	0.00	0.000
30	6.24	0.32	0.570	18.62	0.00	0.000	31.24	0.00	0.000	21.69	0.00	0.000	19.80	0.30	0.000	16.62	0.00	0.000
31				18.06	0.02	0.000				20.74	0.02	0.000	17.56	0.02	0.000			

ORIGINAL PAGE IS
OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1973 RUN OF MODEL MADE 10/ 6/81

DAILY CLIMATOLOGICAL DATA FOR ZONE 2

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE PREC. IN.	PREC. IN.	COVER	DEGREE PREC. IN.	PREC. IN.	COVER	DEGREE PREC. IN.	PREC. IN.	COVER	DEGREE PREC. IN.	PREC. IN.	COVER	DEGREE PREC. IN.	PREC. IN.	COVER	DEGREE PREC. IN.	PREC. IN.	COVER
1	0.00	0.19	1.000	0.00	0.09	0.969	7.98	0.19	0.080	24.43	0.00	0.000	18.85	0.00	0.000	13.16	0.00	0.000
2	0.00	0.04	1.000	0.00	0.00	0.962	1.85	0.02	0.060	26.40	0.00	0.000	20.24	0.00	0.000	12.32	0.00	0.000
3	0.00	0.00	1.000	0.00	0.00	0.955	1.85	0.00	0.045	27.19	0.00	0.000	20.69	0.13	0.000	15.48	0.00	0.000
4	0.00	0.00	1.000	8.11	0.00	0.948	5.14	0.13	0.029	26.06	0.00	0.000	21.08	0.00	0.000	15.85	0.00	0.000
5	0.00	0.00	1.000	5.82	0.38	0.941	5.22	0.00	0.010	26.90	0.00	0.000	21.82	0.00	0.000	16.45	0.00	0.000
6	0.00	0.00	1.000	0.00	0.13	0.932	13.66	0.00	0.000	26.95	0.00	0.000	20.29	0.02	0.000	18.45	0.00	0.000
7	0.00	0.35	1.000	0.30	0.00	0.922	17.11	0.00	0.000	21.43	0.00	0.000	17.90	0.01	0.000	21.14	0.00	0.000
8	0.00	0.01	1.000	3.30	0.00	0.912	20.72	0.00	0.000	26.64	0.00	0.000	20.56	0.00	0.000	17.45	0.00	0.000
9	0.00	0.00	1.000	5.91	0.00	0.900	22.01	0.00	0.000	25.03	0.08	0.000	21.40	0.00	0.000	16.29	0.00	0.000
10	0.00	0.00	1.000	13.48	0.00	0.887	21.82	0.00	0.000	20.72	0.03	0.000	24.29	0.00	0.000	11.09	0.11	0.000
11	0.00	0.00	1.000	16.32	0.00	0.870	20.82	0.00	0.000	22.06	0.00	0.000	22.58	0.00	0.000	11.66	0.14	0.000
12	0.00	0.01	1.000	11.88	0.00	0.851	20.40	0.00	0.000	22.82	0.00	0.000	21.45	0.01	0.000	13.35	0.00	0.000
13	0.00	0.00	1.000	8.16	0.38	0.830	17.51	0.03	0.000	21.35	0.00	0.000	25.74	0.00	0.000	19.03	0.00	0.000
14	0.00	0.24	1.000	6.82	0.00	0.800	8.64	0.00	0.000	18.01	0.10	0.000	24.37	0.02	0.000	16.45	0.00	0.000
15	0.00	0.04	1.000	7.56	0.00	0.772	14.72	0.00	0.000	19.40	0.27	0.000	24.53	0.00	0.000	16.51	0.00	0.000
16	0.00	0.00	1.000	10.43	0.00	0.742	13.40	0.00	0.000	19.61	0.00	0.000	23.40	0.00	0.000	14.61	0.00	0.000
17	0.00	0.24	1.000	11.66	0.00	0.700	13.35	0.00	0.000	17.16	0.00	0.000	23.22	0.00	0.000	14.22	0.00	0.000
18	0.00	0.63	1.000	17.64	0.00	0.650	17.40	0.00	0.000	17.74	1.10	0.000	24.35	0.00	0.000	15.66	0.00	0.000
19	0.00	0.32	1.000	15.82	0.00	0.600	7.95	0.00	0.000	19.85	0.00	0.000	26.25	0.00	0.000	14.61	0.00	0.000
20	0.00	0.06	1.000	10.59	0.00	0.550	11.16	0.00	0.000	16.74	0.00	0.000	15.91	0.00	0.000	15.27	0.00	0.000
21	0.00	0.00	1.000	10.09	0.09	0.505	14.51	0.00	0.000	19.26	0.00	0.000	19.90	0.05	0.000	13.59	0.00	0.000
22	0.00	0.00	1.000	2.04	0.10	0.455	16.61	0.00	0.000	16.37	0.00	0.000	21.40	0.18	0.000	14.51	0.00	0.000
23	0.59	0.00	0.998	6.98	0.00	0.410	20.61	0.00	0.000	17.66	0.00	0.000	18.27	0.00	0.000	5.80	0.00	0.000
24	0.00	0.00	0.995	9.54	0.00	0.360	21.45	0.00	0.000	20.95	0.00	0.000	20.32	0.00	0.000	2.09	0.00	0.000
25	0.64	0.00	0.992	9.04	1.04	0.310	21.56	0.00	0.000	20.29	0.00	0.000	19.51	0.00	0.000	1.88	0.05	0.000
26	2.56	0.00	0.989	4.43	0.02	0.260	26.56	0.00	0.000	18.85	0.00	0.000	20.29	0.26	0.000	2.40	0.11	0.000
27	3.43	0.00	0.986	0.72	0.00	0.215	25.40	0.00	0.000	18.24	0.00	0.000	21.69	0.00	0.000	5.98	0.00	0.000
28	4.59	0.00	0.982	9.56	0.00	0.170	24.45	0.18	0.000	19.24	0.00	0.000	18.43	0.05	0.000	7.64	0.00	0.000
29	6.43	0.00	0.978	11.27	0.00	0.145	25.19	0.00	0.000	20.51	0.00	0.000	10.85	0.00	0.000	11.79	0.00	0.000
30	0.00	0.08	0.972	13.95	0.00	0.120	26.06	0.00	0.000	19.87	0.00	0.000	11.25	0.30	0.000	11.95	0.00	0.000
31				12.61	0.04	0.099				15.56	0.02	0.000	12.11					

ORIGINAL PAGE 13
OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1973 RUN OF MODEL MADE 10/ 6/81

DAILY CLIMATOLOGICAL DATA FOR ZONE 3

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE	PREC.	SNOW	DEGREE	PREC.	SNOW	DEGREE	PREC.	SNOW	DEGREE	PREC.	SNOW	DEGREE	PREC.	SNOW	DEGREE	PREC.	SNOW
	DAYS	IN.	COVER	DAYS	IN.	COVER	DAYS	IN.	COVER	DAYS	IN.	COVER	DAYS	IN.	COVER	DAYS	IN.	COVER
1	0.00	0.29	1.000	0.00	0.14	1.000	1.00	0.29	0.770	17.70	0.00	0.071	14.86	0.00	0.000	7.68	0.00	0.000
2	0.00	0.00	1.000	0.00	0.00	1.000	0.00	0.45	0.730	22.16	0.00	0.062	16.75	0.00	0.000	6.09	0.00	0.000
3	0.00	0.00	1.000	0.00	0.00	1.000	0.00	0.75	0.685	23.95	0.00	0.953	17.45	0.40	0.000	13.23	0.00	0.000
4	0.00	0.00	1.000	2.88	0.00	1.000	0.00	0.27	0.630	21.07	0.00	0.048	18.34	0.20	0.000	11.86	0.00	0.000
5	0.00	0.00	1.000	0.00	0.58	1.000	0.00	0.00	0.570	22.66	0.00	0.041	15.59	0.30	0.000	11.97	0.00	0.000
6	0.00	0.00	1.000	0.00	0.19	1.000	8.18	0.00	0.520	22.97	0.00	0.037	16.55	0.60	0.000	13.97	0.00	0.000
7	0.00	0.41	1.000	0.00	0.00	1.000	11.88	0.00	0.480	14.70	0.00	0.030	13.66	0.67	0.000	18.14	0.00	0.000
8	0.00	0.00	1.000	0.00	0.00	1.000	14.98	0.00	0.445	23.64	0.00	0.025	15.57	0.00	0.000	12.97	0.44	0.000
9	0.00	0.00	1.000	0.00	0.00	1.000	17.27	0.00	0.415	22.54	0.00	0.019	17.16	0.05	0.000	12.55	1.10	0.000
10	0.00	0.00	1.000	6.50	0.00	1.000	15.89	0.00	0.385	14.98	0.25	0.015	20.55	0.00	0.000	3.61	0.00	0.000
11	0.00	0.00	1.000	10.09	0.00	0.999	14.59	0.00	0.360	17.07	0.00	0.011	19.84	0.00	0.000	6.18	0.00	0.000
12	0.00	0.00	1.000	5.39	0.00	0.998	16.16	0.05	0.340	16.59	0.10	0.008	16.97	0.00	0.000	9.36	0.20	0.000
13	0.00	0.00	1.000	2.68	0.57	0.995	12.77	0.57	0.315	17.36	0.17	0.002	22.25	0.00	0.000	16.54	0.00	0.000
14	0.00	0.38	1.000	0.59	0.00	0.992	0.91	0.00	0.295	13.27	0.44	0.000	22.63	0.17	0.000	11.97	0.00	0.000
15	0.00	0.07	1.000	2.57	0.00	0.990	9.98	0.00	0.273	15.16	0.00	0.000	22.04	0.00	0.000	11.77	0.00	0.000
16	0.00	0.00	1.000	3.70	0.00	0.988	9.16	0.00	0.253	14.38	0.00	0.000	19.16	0.00	0.000	9.38	0.00	0.000
17	0.00	0.38	1.000	6.18	0.00	0.982	9.36	0.00	0.238	11.68	0.23	0.000	17.48	0.00	0.000	8.48	0.00	0.000
18	0.00	0.97	1.000	9.91	0.00	0.978	13.16	0.00	0.220	14.25	0.56	0.000	20.36	0.00	0.000	10.18	0.00	0.000
19	0.00	0.50	1.000	9.59	0.00	0.971	3.47	0.00	0.202	15.86	0.05	0.000	22.36	1.11	0.000	9.38	0.00	0.000
20	0.00	0.10	1.000	3.11	0.00	0.967	5.68	0.00	0.190	13.25	0.11	0.000	6.93	0.18	0.000	9.29	0.00	0.000
21	0.00	0.00	1.000	2.61	0.13	0.960	9.77	0.00	0.178	17.43	0.00	0.000	15.66	0.04	0.000	6.11	0.00	0.000
22	0.00	0.00	1.000	0.00	0.13	0.950	11.38	0.00	0.164	13.64	0.10	0.000	17.16	0.00	0.000	9.77	0.00	0.000
23	0.00	0.00	1.000	0.00	0.00	0.941	15.38	0.00	0.150	12.18	0.00	0.000	12.29	0.31	0.000	0.00	0.00	0.000
24	0.00	0.00	1.000	2.31	0.00	0.931	16.97	0.00	0.139	16.47	0.00	0.000	14.09	0.21	0.000	0.00	0.33	0.000
25	0.00	0.00	1.000	1.81	1.42	0.921	16.57	0.00	0.128	16.55	0.00	0.000	14.77	0.00	0.000	0.00	0.00	0.000
26	0.00	0.00	1.000	0.00	0.00	0.910	21.57	0.00	0.119	14.86	0.13	0.000	16.55	0.00	0.000	0.00	0.00	0.000
27	0.00	0.00	1.000	0.00	0.00	0.898	21.16	0.00	0.108	14.75	0.00	0.000	18.45	0.00	0.000	3.73	0.00	0.000
28	0.00	0.00	1.000	4.57	0.00	0.880	19.97	0.00	0.098	15.75	0.47	0.000	11.70	0.37	0.000	4.64	0.00	0.000
29	0.00	0.00	1.000	5.29	0.00	0.861	21.95	0.00	0.088	15.77	0.18	0.000	2.13	0.85	0.000	8.05	0.00	0.000
30	0.00	1.02	1.000	9.47	0.00	0.840	21.07	0.00	0.080	18.13	0.10	0.000	3.02	0.03	0.000	7.47	0.00	0.000
31				7.38	0.06	0.805				10.57	0.00	0.000	6.88	0.00	0.000			

ORIGINAL PAGE IS
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RANGO/MARTINEC MODEL VERSION RC1-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1973 RUN OF MODEL MADE 10/ 6/81

WATERSHED MELT AND RUNOFF COEFFICIENTS

	APRIL				MAY				JUNE				JULY				AUGUST				SEPTEMBER			
	1	15	16	30	1	15	16	31	1	15	16	30	1	15	16	31	1	15	16	31	1	15	16	30
DATA FOR ZONE 11																								
MELT FACTORS	0.050	0.050	0.050	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070
RUNOFF COEF.	0.750	0.600	0.600	0.350	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150
PREC. METHOD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DATA FOR ZONE 21																								
MELT FACTORS	0.040	0.040	0.040	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070
RUNOFF COEF.	0.700	0.700	0.700	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.500
PREC. METHOD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DATA FOR ZONE 31																								
MELT FACTORS	0.030	0.040	0.040	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060	0.060
RUNOFF COEF.	0.760	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800
PREC. METHOD	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NOTE: PREC. METHOD:
0 = PREC. RUNOFF COMPUTED FOR NON-SNOWCOVERED AREAS ONLY
1 = PREC. RUNOFF COMPUTED FOR ALL AREAS

ORIGINAL PAGE IS
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RANGO/MARTINEC MODEL VERSION KCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1973 RUN OF MODEL MADE 10/ 6/81

COMPUTED DAILY RUNOFF FOR ZONE 1

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	523.5	230.7	0.0	0.0	0.0
2	0.0	599.6	24.3	0.0	0.0	0.0
3	0.0	657.9	0.0	0.0	157.8	0.0
4	0.0	1062.1	157.8	0.0	0.0	0.0
5	0.0	1158.9	0.0	0.0	0.0	0.0
6	813.4	412.9	0.0	0.0	24.3	0.0
7	0.0	532.9	0.0	0.0	12.1	0.0
8	0.0	600.3	0.0	0.0	0.0	0.0
9	0.0	649.7	0.0	97.1	0.0	0.0
10	0.0	781.4	0.0	26.4	0.0	133.5
11	886.6	723.7	0.0	0.0	0.0	170.0
12	1256.7	559.6	0.0	0.0	12.1	0.0
13	1868.1	801.1	36.4	0.0	0.0	0.0
14	1520.8	323.4	0.0	121.4	24.3	0.0
15	0.0	275.6	0.0	327.8	0.0	0.0
16	0.0	130.3	0.0	0.0	0.0	0.0
17	988.7	107.8	0.0	0.0	0.0	0.0
18	668.2	135.3	0.0	1335.4	0.0	0.0
19	0.0	96.7	0.0	0.0	0.0	0.0
20	0.0	64.0	0.0	0.0	0.0	0.0
21	0.0	109.3	0.0	0.0	60.7	0.0
22	856.1	115.8	0.0	0.0	218.5	0.0
23	1646.2	30.3	0.0	0.0	0.0	0.0
24	1463.8	11.6	0.0	0.0	0.0	0.0
25	1601.7	534.2	0.0	0.0	0.0	60.7
26	1381.3	145.7	0.0	0.0	315.6	133.5
27	1772.7	0.0	0.0	0.0	0.0	0.0
28	1967.3	0.0	218.5	0.0	60.7	0.0
29	2005.5	0.0	0.0	0.0	0.0	0.0
30	1531.8	0.0	0.0	0.0	364.2	0.0
31		24.3	0.0	24.3	24.3	0.0

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1973 RUN OF MODEL MADE 10/ 6/81

COMPUTED DAILY RUNOFF FOR ZONE 2

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	0.0	1600.1	0.0	0.0	0.0
2	0.0	0.0	79.9	0.0	0.0	0.0
3	0.0	0.0	174.6	0.0	260.1	0.0
4	0.0	3588.8	887.6	0.0	0.0	0.0
5	0.0	2705.9	37.6	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	40.0	0.0
7	0.0	129.1	0.0	0.0	20.0	0.0
8	0.0	1404.9	0.0	0.0	0.0	0.0
9	0.0	2482.9	0.0	266.7	0.0	0.0
10	0.0	5581.3	0.0	100.0	0.0	220.1
11	0.0	6627.7	0.0	0.0	0.0	280.1
12	0.0	4719.2	0.0	0.0	20.0	0.0
13	0.0	3592.3	180.0	0.0	0.0	0.0
14	0.0	2546.8	0.0	333.4	40.0	0.0
15	0.0	2724.3	0.0	900.2	0.0	0.0
16	0.0	3715.7	0.0	0.0	0.0	0.0
17	0.0	3918.8	0.0	0.0	0.0	0.0
18	0.0	5505.1	0.0	2200.6	0.0	0.0
19	0.0	4557.4	0.0	0.0	0.0	0.0
20	0.0	2796.5	0.0	0.0	0.0	0.0
21	0.0	2713.8	0.0	0.0	100.0	0.0
22	0.0	772.7	0.0	0.0	360.1	0.0
23	219.9	1374.0	0.0	0.0	0.0	0.0
24	0.0	1649.0	0.0	0.0	0.0	0.0
25	237.1	5652.3	0.0	0.0	0.0	0.0
26	945.5	641.8	0.0	0.0	520.1	320.1
27	1242.9	74.3	0.0	0.0	0.0	0.0
28	1683.2	780.3	960.3	0.0	100.0	0.0
29	2348.3	784.6	0.0	0.0	0.0	0.0
30	0.0	803.7	0.0	0.0	600.2	0.0
31		815.7		40.0	40.0	

ORIGINAL FILE
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KANGO/MARTINEC MODEL VERSION 6CI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1973 RUN OF MODEL MADE 10/ 6/81

COMPUTED DAILY RUNOFF FOR ZONE 3

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	0.0	1137.0	1838.0	0.0	0.0
2	0.0	0.0	0.0	2009.4	0.0	0.0
3	0.0	0.0	0.0	1854.3	1237.5	0.0
4	0.0	1944.1	0.0	1479.2	618.8	0.0
5	0.0	0.0	0.0	1358.8	928.2	0.0
6	0.0	0.0	12078.6	1215.9	1836.3	0.0
7	0.0	0.0	11792.1	845.0	2072.9	0.0
8	0.0	0.0	9843.2	844.4	0.0	1341.3
9	0.0	0.0	10582.9	626.3	154.7	3403.2
10	0.0	4387.6	8862.8	2613.9	0.0	0.0
11	0.0	6804.1	7755.7	274.6	0.0	0.0
12	0.0	3631.1	8461.1	1108.2	0.0	618.8
13	0.0	1832.1	10057.9	1604.7	0.0	0.0
14	0.0	395.1	396.4	4022.0	526.0	0.0
15	0.0	1717.5	3620.0	0.0	0.0	0.0
16	0.0	2698.9	3910.9	0.0	0.0	0.0
17	0.0	4480.6	3759.3	970.3	0.0	0.0
18	0.0	7155.6	4885.8	2362.6	0.0	0.0
19	0.0	6875.0	1182.9	210.9	3434.2	0.0
20	0.0	2220.3	1821.2	464.1	556.9	0.0
21	0.0	1904.7	2934.7	0.0	185.6	0.0
22	0.0	0.0	3149.5	421.9	0.0	0.0
23	0.0	0.0	3893.2	0.0	959.1	0.0
24	0.0	1587.8	3980.6	0.0	649.7	0.0
25	0.0	1230.8	3579.2	0.0	0.0	0.0
26	0.0	0.0	4331.6	548.5	0.0	0.0
27	0.0	0.0	3856.5	0.0	0.0	1021.0
28	0.0	2969.2	3302.6	1982.9	1144.7	0.0
29	0.0	3362.7	3259.7	759.4	2629.8	0.0
30	0.0	5873.0	2844.5	421.9	92.8	0.0
31		4509.6		0.0	0.0	

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1973 RUN OF MODEL MADE 10/ 6/81

DAY	STREAMFLOW FOR APRIL			STREAMFLOW FOR MAY			STREAMFLOW FOR JUNE			STREAMFLOW FOR JULY			STREAMFLOW FOR AUGUST			STREAMFLOW FOR SEPTEMBER		
	COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS	
1	198.	198.		1274.	1215.		4454.	4859.		3995.	4826.		1052.	925.		753.	617.	
2	189.	234.		1219.	1253.		4264.	4604.		3794.	4577.		976.	866.		702.	567.	
3	181.	263.		1174.	1156.		3870.	4047.		3426.	4152.		917.	891.		656.	514.	
4	173.	234.		1267.	1492.		3537.	3878.		3459.	3718.		962.	949.		614.	477.	
5	166.	235.		1606.	1818.		3294.	3588.		3277.	3639.		940.	880.		575.	388.	
6	170.	277.		1704.	1682.		3151.	3400.		3101.	3062.		945.	896.		539.	398.	
7	186.	278.		1606.	1404.		3948.	4011.		2927.	2940.		1015.	875.		506.	366.	
8	178.	230.		1562.	1521.		4656.	4764.		2726.	2676.		1080.	856.		483.	444.	
9	170.	244.		1622.	1878.		5162.	5798.		2563.	2797.		1002.	601.		546.	420.	
10	163.	322.		1911.	2457.		5669.	6886.		2441.	3716.		941.	662.		705.	468.	
11	169.	336.		2711.	3326.		5971.	7643.		2448.	2427.		874.	596.		682.	598.	
12	204.	344.		3585.	4030.		6158.	7793.		2267.	1386.		814.	628.		668.	558.	
13	260.	399.		4006.	3455.		6410.	6920.		2173.	2953.		761.	582.		661.	525.	
14	333.	435.		4138.	4046.		6682.	6918.		2146.	2009.		713.	389.		619.	492.	
15	369.	435.		4090.	3857.		6078.	6311.		2318.	1690.		702.	649.		579.	457.	
16	349.	373.		4193.	4020.		5833.	5289.		2216.	1679.		656.	593.		543.	438.	
17	348.	401.		4460.	4203.		5638.	4535.		2036.	1730.		613.	438.		510.	444.	
18	377.	510.		4945.	3926.		5463.	4465.		1984.	1560.		574.	535.		479.	434.	
19	381.	378.		5672.	5943.		5365.	4405.		2285.	1904.		558.	521.		451.	396.	
20	360.	371.		6096.	6423.		4959.	4043.		2093.	1579.		720.	552.		424.	354.	
21	340.	410.		5983.	5891.		4665.	4070.		1954.	1491.		708.	570.		400.	342.	
22	337.	373.		5766.	5389.		4500.	4190.		1796.	1326.		685.	660.		378.	324.	
23	382.	509.		5290.	4888.		4377.	4274.		1681.	1176.		681.	577.		357.	307.	
24	457.	621.		4946.	4786.		4332.	4518.		1947.	1115.		697.	501.		337.	330.	
25	523.	635.		4843.	5494.		4294.	4798.		1425.	1031.		690.	541.		320.	341.	
26	612.	735.		4976.	5557.		4233.	4798.		1319.	1052.		650.	211.		308.	341.	
27	735.	879.		4554.	4711.		4237.	5240.		1257.	978.		657.	796.		318.	334.	
28	900.	1121.		4191.	4037.		4207.	5643.		1175.	979.		622.	534.		350.	353.	
29	1107.	1325.		4155.	3672.		4221.	5285.		1227.	1016.		673.	552.		331.	383.	
30	1279.	1483.		4126.	3876.		4126.	5135.		1170.	932.		791.	587.		314.	383.	
31				4406.	4245.					1130.	991.		803.	1026.				

ORIGINAL PRINT
OF POOR QUALITY

RANGO/HARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

SUMMARY OF THE MODEL RUN FOR THE YEAR OF 1973 RUN OF MODEL MADE 10/ 6/81

NASH-SUTCLIFFE GOODNESS OF FIT METHOD - NSR#2 = 0.9552

ACTUAL SEASON VOLUME = 378893.000 CFS-DAYS

COMPUTED SEASON VOLUME = 376652.500 CFS-DAYS

SEASONAL DIFFERENCE IN PERCENT = -0.59

ORIGINAL FILED
OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION KCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1974 RUN OF MODEL MADE 10/ 6/81

DAILY CLIMATOLOGICAL DATA FOR ZONE 1

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE	PREC.	SNOW	DEGREE	PREC.	SNOW	DEGREE	PREC.	SNOW	DEGREE	PREC.	SNOW	DEGREE	PREC.	SNOW	DEGREE	PREC.	SNOW
	DAYS	IN.	COVER	DAYS	IN.	COVER	DAYS	IN.	COVER	DAYS	IN.	COVER	DAYS	IN.	COVER	DAYS	IN.	COVER
1	0.00	0.22	0.199	11.99	0.00	0.000	13.31	0.00	0.000	24.87	0.00	0.000	24.87	0.12	0.000	23.99	0.00	0.000
2	0.00	0.05	0.180	16.74	0.00	0.000	16.93	0.00	0.000	26.87	0.00	0.000	22.75	0.05	0.000	24.06	0.00	0.000
3	0.00	0.00	0.162	12.41	0.00	0.000	15.75	0.00	0.000	22.30	0.00	0.000	23.49	0.00	0.000	19.31	0.00	0.000
4	0.00	0.00	0.149	15.93	0.00	0.000	18.31	0.00	0.000	26.00	0.00	0.000	22.81	0.08	0.000	22.56	0.00	0.000
5	0.00	0.00	0.138	14.68	0.00	0.000	16.62	0.00	0.000	21.68	0.00	0.000	23.48	0.00	0.000	21.50	0.00	0.000
6	3.30	0.00	0.123	16.68	0.00	0.000	14.30	0.00	0.000	26.25	0.00	0.000	24.37	0.00	0.000	26.24	0.00	0.000
7	1.62	0.00	0.111	20.62	0.00	0.000	10.61	0.00	0.000	26.74	0.10	0.000	24.93	0.03	0.000	24.50	0.00	0.000
8	5.06	0.03	0.100	21.81	0.00	0.000	12.12	0.19	0.000	25.81	0.15	0.000	19.24	0.06	0.000	24.31	0.00	0.000
9	3.61	0.13	0.090	20.24	0.00	0.000	18.31	0.00	0.000	25.87	0.00	0.000	18.18	0.33	0.000	26.24	0.08	0.000
10	1.11	0.00	0.080	20.87	0.00	0.000	20.00	0.00	0.000	27.93	0.00	0.000	19.00	0.00	0.000	25.06	0.03	0.000
11	0.00	0.00	0.072	21.56	0.00	0.000	23.31	0.00	0.000	27.49	0.00	0.000	21.12	0.00	0.000	24.87	0.00	0.000
12	0.00	0.00	0.062	21.24	0.00	0.000	24.43	0.00	0.000	29.62	0.00	0.000	22.56	0.00	0.000	21.93	0.00	0.000
13	0.00	0.00	0.058	19.93	0.00	0.000	25.68	0.00	0.000	28.12	0.00	0.000	24.24	0.00	0.000	18.37	0.00	0.000
14	0.00	0.00	0.050	19.50	0.00	0.000	27.49	0.00	0.000	27.18	0.00	0.000	23.93	0.00	0.000	17.68	0.13	0.000
15	3.43	0.00	0.044	23.68	0.00	0.000	27.74	0.00	0.000	24.99	0.28	0.000	26.12	0.00	0.000	12.68	0.90	0.000
16	7.68	0.00	0.038	22.43	0.00	0.000	25.93	0.00	0.000	25.68	0.03	0.000	26.74	0.00	0.000	12.43	0.00	0.000
17	11.99	0.00	0.032	19.81	0.00	0.000	25.00	0.00	0.000	25.62	0.00	0.000	27.87	0.00	0.000	12.74	0.00	0.000
18	9.86	0.05	0.029	21.12	0.00	0.000	28.50	0.00	0.000	26.87	0.66	0.000	28.74	0.00	0.000	16.93	0.00	0.000
19	6.36	0.08	0.022	19.81	0.00	0.000	27.93	0.00	0.000	26.12	0.02	0.000	26.74	0.05	0.000	19.43	0.00	0.000
20	3.43	0.00	0.018	13.37	0.00	0.000	30.12	0.00	0.000	25.50	0.00	0.000	25.56	0.05	0.000	18.93	0.00	0.000
21	6.31	0.00	0.014	10.18	0.00	0.000	29.18	0.00	0.000	27.74	0.00	0.000	22.62	0.05	0.000	18.56	0.00	0.000
22	11.18	0.00	0.010	10.79	0.00	0.000	28.93	0.00	0.000	26.49	0.00	0.000	23.00	0.06	0.000	17.37	0.00	0.000
23	19.62	0.00	0.008	14.49	0.00	0.000	29.50	0.00	0.000	27.31	0.00	0.000	23.50	0.00	0.000	16.12	0.00	0.000
24	15.18	0.08	0.004	13.80	0.00	0.000	27.68	0.00	0.000	24.37	0.10	0.000	22.31	0.00	0.000	18.56	0.90	0.000
25	14.99	0.00	0.000	20.43	0.00	0.000	29.06	0.05	0.000	23.44	0.00	0.000	24.18	0.00	0.000	17.93	0.00	0.000
26	15.30	0.00	0.000	17.80	0.00	0.000	28.31	0.00	0.000	25.06	0.00	0.000	24.50	0.00	0.000	16.56	0.00	0.000
27	12.43	0.00	0.000	18.99	0.00	0.000	28.81	0.00	0.000	24.87	0.23	0.000	26.93	0.22	0.000	17.00	0.08	0.000
28	9.68	0.00	0.000	23.50	0.00	0.000	29.81	0.00	0.000	24.87	0.00	0.000	21.06	0.00	0.000	14.13	0.00	0.000
29	9.68	0.00	0.000	22.25	0.00	0.000	30.43	0.00	0.000	23.62	0.00	0.000	23.50	0.00	0.000	14.75	0.00	0.000
30	9.62	0.00	0.000	21.25	0.00	0.000	27.43	0.04	0.000	24.12	0.03	0.000	22.50	0.00	0.000	17.48	0.00	0.000
31				18.87	0.00	0.000				24.56	0.32	0.000	23.00	0.00	0.000			

ORIGINAL
OF POOR QUALITY

RANBO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1974 RUN OF MODEL MADE 10/ 6/81

DAILY CLIMATOLOGICAL DATA FOR ZONE 2

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.52	0.875	5.77	0.00	0.149	15.13	0.00	0.000	21.24	0.00	0.000	21.24	0.12	0.000	17.77	0.00	0.000
2	0.00	0.11	0.862	11.56	0.00	0.139	14.08	0.00	0.000	21.16	0.00	0.000	21.71	0.05	0.000	18.61	0.00	0.000
3	0.00	0.00	0.850	3.89	0.00	0.129	14.71	0.00	0.000	13.75	0.00	0.000	21.87	0.00	0.000	17.05	0.00	0.000
4	0.00	0.00	0.832	8.93	0.00	0.119	13.90	0.00	0.000	21.85	0.00	0.000	20.48	0.08	0.000	21.26	0.00	0.000
5	0.00	0.00	0.818	10.79	0.00	0.109	9.88	0.00	0.000	17.79	0.00	0.000	19.79	0.00	0.000	19.42	0.00	0.000
6	0.00	0.00	0.799	12.79	0.00	0.099	5.75	0.00	0.000	23.14	0.00	0.000	18.66	0.00	0.000	21.06	0.00	0.000
7	0.00	0.00	0.775	18.03	0.00	0.089	0.00	0.00	0.000	21.56	0.10	0.000	20.01	0.03	0.000	20.35	0.00	0.000
8	1.69	0.06	0.743	15.32	0.00	0.080	11.61	0.19	0.000	21.40	0.15	0.000	14.06	0.06	0.000	19.90	0.00	0.000
9	0.00	0.31	0.710	12.98	0.00	0.071	13.90	0.00	0.000	20.16	0.00	0.000	14.29	0.33	0.000	21.06	0.08	0.000
10	0.00	0.00	0.673	15.16	0.00	0.061	15.85	0.00	0.000	23.01	0.00	0.000	14.85	0.00	0.000	21.69	0.03	0.000
11	0.00	0.00	0.645	16.11	0.00	0.057	18.90	0.00	0.000	21.27	0.00	0.000	16.45	0.00	0.000	19.16	0.00	0.000
12	0.00	0.00	0.605	16.06	0.00	0.050	21.58	0.00	0.000	24.95	0.00	0.000	17.11	0.00	0.000	19.08	0.00	0.000
13	0.00	0.00	0.570	10.85	0.00	0.043	21.79	0.00	0.000	21.38	0.00	0.000	19.06	0.00	0.000	16.82	0.00	0.000
14	0.00	0.00	0.540	15.35	0.00	0.038	21.27	0.00	0.000	21.22	0.00	0.000	19.01	0.00	0.000	13.79	0.13	0.000
15	0.00	0.00	0.510	15.64	0.00	0.033	22.56	0.00	0.000	18.77	0.28	0.000	21.45	0.00	0.000	6.72	0.80	0.000
16	1.72	0.00	0.475	15.43	0.00	0.029	23.08	0.00	0.000	19.72	0.03	0.000	21.56	0.00	0.000	7.51	0.00	0.000
17	5.77	0.00	0.445	15.40	0.00	0.026	20.85	0.00	0.000	20.95	0.00	0.000	22.14	0.00	0.000	7.56	0.00	0.000
18	0.01	0.13	0.410	16.45	0.00	0.020	23.42	0.00	0.000	21.16	0.66	0.000	23.56	0.00	0.000	12.01	0.00	0.000
19	0.00	0.18	0.380	15.40	0.00	0.019	25.08	0.00	0.000	19.38	0.02	0.000	19.48	0.05	0.000	14.51	0.00	0.000
20	0.00	0.00	0.350	7.66	0.00	0.013	25.45	0.00	0.000	21.35	0.00	0.000	20.11	0.05	0.000	14.01	0.00	0.000
21	1.90	0.00	0.321	6.29	0.00	0.010	23.22	0.00	0.000	22.56	0.00	0.000	17.95	0.05	0.000	15.19	0.00	0.000
22	7.29	0.00	0.297	1.75	0.00	0.008	24.01	0.00	0.000	20.27	0.00	0.000	18.85	0.06	0.000	15.82	0.00	0.000
23	19.11	0.00	0.272	4.12	0.00	0.005	25.35	0.00	0.000	22.90	0.00	0.000	19.35	0.00	0.000	11.45	0.00	0.000
24	9.22	0.18	0.251	5.25	0.00	0.002	25.79	0.00	0.000	22.82	0.10	0.000	17.90	0.00	0.000	13.11	0.00	0.000
25	8.77	0.00	0.232	15.51	0.00	0.000	23.61	0.05	0.000	22.66	0.00	0.000	20.29	0.00	0.000	13.01	0.00	0.000
26	6.75	0.00	0.218	7.17	0.00	0.000	25.98	0.00	0.000	21.69	0.00	0.000	20.35	0.00	0.000	13.19	0.00	0.000
27	5.43	0.00	0.200	8.62	0.00	0.000	22.32	0.00	0.000	21.24	0.23	0.000	19.93	0.22	0.000	14.92	0.08	0.000
28	3.72	0.00	0.190	19.35	0.00	0.000	23.32	0.00	0.000	21.24	0.00	0.000	17.69	0.00	0.000	15.68	0.00	0.000
29	3.72	0.00	0.175	19.14	0.00	0.000	25.51	0.00	0.000	18.95	0.00	0.000	19.35	0.00	0.000	15.79	0.00	0.000
30	4.95	0.00	0.160	18.14	0.00	0.000	20.43	0.04	0.000	19.45	0.03	0.000	20.42	0.00	0.000	13.79	0.00	0.000
31				15.24	0.00	0.000				19.11	0.32	0.000	18.85	0.00	0.000			

RANGOZ/HARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1974 RUN OF MODEL MADE 10/ 6/81

DAILY CLIMATOLOGICAL DATA FOR ZONE 3

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.81	0.989	0.00	0.00	0.801	15.11	0.15	0.170	17.75	0.00	0.000	17.75	0.20	0.000	11.79	0.00	0.000
2	0.00	0.17	0.987	6.57	0.00	0.788	11.34	0.00	0.159	15.68	0.00	0.000	20.32	0.15	0.000	13.38	0.00	0.000
3	0.00	0.00	0.985	0.00	0.00	0.770	13.71	0.00	0.144	5.32	0.00	0.000	19.34	0.25	0.000	18.61	0.00	0.000
4	0.00	0.00	0.980	2.20	0.00	0.750	9.66	0.00	0.130	17.86	0.00	0.000	18.23	0.33	0.000	19.04	0.00	0.000
5	0.00	0.00	0.979	7.05	0.00	0.730	3.39	0.00	0.119	14.05	0.00	0.000	16.05	0.00	0.000	17.43	0.00	0.000
6	0.00	0.00	0.974	9.05	0.00	0.710	0.00	0.00	0.108	19.55	0.00	0.000	13.18	0.00	0.000	16.07	0.00	0.000
7	0.00	0.00	0.970	15.54	0.00	0.691	0.00	0.00	0.098	16.57	0.23	0.000	15.27	0.46	0.000	16.36	0.00	0.000
8	0.00	0.10	0.968	9.09	0.00	0.670	10.71	0.00	0.098	17.16	0.00	0.000	9.07	0.11	0.000	15.66	0.00	0.000
9	0.00	0.49	0.963	6.00	0.00	0.649	9.66	0.00	0.078	14.68	0.00	0.000	10.55	0.43	0.000	16.07	0.11	0.000
10	0.00	0.00	0.960	9.68	0.00	0.622	11.86	0.00	0.069	18.27	0.00	0.000	10.86	0.00	0.000	18.45	0.00	0.000
11	0.00	0.00	0.957	10.88	0.00	0.610	14.66	0.00	0.060	15.29	0.00	0.000	11.97	0.23	0.000	13.68	0.00	0.000
12	0.00	0.00	0.952	11.07	0.00	0.588	18.84	0.00	0.052	20.47	0.00	0.000	11.88	0.00	0.000	16.34	0.00	0.000
13	0.00	0.00	0.948	2.13	0.00	0.565	18.05	0.00	0.043	14.89	0.50	0.000	14.07	0.00	0.000	15.32	0.20	0.000
14	0.00	0.00	0.941	11.36	0.00	0.542	15.29	0.00	0.038	15.48	0.69	0.000	14.27	0.00	0.000	10.05	0.40	0.000
15	0.00	0.00	0.938	7.91	0.00	0.520	17.57	0.00	0.032	12.79	0.37	0.000	16.97	0.00	0.000	0.98	0.29	0.000
16	0.00	0.00	0.934	8.70	0.00	0.500	20.34	0.00	0.028	13.98	0.22	0.000	16.57	0.00	0.000	2.77	0.00	0.000
17	0.00	0.00	0.929	11.16	0.00	0.480	16.86	0.00	0.020	16.47	0.73	0.000	16.68	0.00	0.000	2.57	0.00	0.000
18	0.00	0.19	0.922	11.97	0.00	0.460	21.43	0.00	0.015	15.68	0.00	0.000	18.57	0.00	0.000	7.27	0.00	0.000
19	0.00	0.28	0.915	11.16	0.00	0.440	22.34	0.00	0.012	12.89	0.00	0.000	12.50	0.42	0.000	9.77	0.00	0.000
20	0.00	0.00	0.910	1.39	0.00	0.415	20.97	0.00	0.008	17.36	0.05	0.000	14.88	0.00	0.000	9.27	0.00	0.000
21	0.00	0.00	0.902	1.57	0.00	0.395	17.48	0.00	0.001	17.57	0.28	0.000	13.47	0.00	0.000	11.95	0.00	0.000
22	3.14	0.00	0.896	0.00	0.00	0.370	19.27	0.00	0.000	14.29	0.00	0.000	14.86	0.00	0.000	14.32	0.48	0.000
23	18.02	0.00	0.887	0.00	0.00	0.348	21.36	0.00	0.000	18.66	0.12	0.000	15.36	0.00	0.000	6.97	0.47	0.000
24	3.48	0.28	0.880	0.00	0.00	0.324	22.05	0.05	0.000	21.32	0.70	0.000	13.66	0.00	0.000	7.88	0.00	0.000
25	2.79	0.00	0.870	10.77	0.00	0.300	18.38	0.00	0.000	21.52	0.00	0.000	16.55	0.00	0.000	8.27	0.00	0.000
26	0.00	0.00	0.861	0.00	0.00	0.281	23.73	0.00	0.000	18.45	0.00	0.000	16.36	0.00	0.000	9.95	0.06	0.000
27	0.00	0.00	0.850	0.00	0.00	0.260	16.09	0.00	0.000	17.75	0.00	0.000	13.20	0.00	0.000	12.93	0.00	0.000
28	0.00	0.00	0.839	15.36	0.00	0.245	17.09	0.00	0.000	17.75	0.67	0.000	14.45	0.00	0.000	16.00	0.00	0.000
29	0.00	0.00	0.827	16.14	0.00	0.228	20.77	0.00	0.000	14.47	0.00	0.000	15.36	0.00	0.000	16.00	0.00	0.000
30	0.47	0.00	0.815	14.55	0.00	0.210	13.70	0.00	0.000	14.97	0.00	0.000	18.43	0.00	0.000	10.05	0.00	0.000
31				11.75	0.00	0.190				13.98	0.23	0.000	14.86	0.00	0.000			

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OF FOUR QUALITY

RANBO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1974 RUN OF MODEL MADE 10/ 6/81

WATERSHED MELT AND RUNOFF COEFFICIENTS

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	1	15	30	1	15	30	1	15	30	1	15	30	1	15	30	1	15	30
DATA FOR ZONE 1:																		
MELT FACTORS	0.050	0.050		0.070	0.070		0.070	0.070		0.070	0.070		0.070	0.070		0.070	0.070	
RUNOFF COEF.	0.600	0.350		0.250	0.120		0.120	0.120		0.100	0.100		0.100	0.100		0.100	0.100	
PREC. METHOD	0	0		0	1		1	1		1	1		1	1		1	1	
DATA FOR ZONE 2:																		
MELT FACTORS	0.040	0.040		0.070	0.120		0.120	0.120		0.120	0.120		0.120	0.120		0.120	0.120	
RUNOFF COEF.	0.600	0.300		0.300	0.200		0.200	0.120		0.100	0.100		0.100	0.100		0.100	0.100	
PREC. METHOD	0	0		0	0		1	1		1	1		1	1		1	1	
DATA FOR ZONE 3:																		
MELT FACTORS	0.030	0.060		0.080	0.120		0.150	0.150		0.150	0.150		0.150	0.150		0.150	0.150	
RUNOFF COEF.	0.800	0.600		0.500	0.300		0.200	0.180		0.180	0.150		0.150	0.150		0.150	0.150	
PREC. METHOD	0	0		0	0		0	1		1	1		1	1		1	1	

NOTE: PREC. METHOD:
0 = PREC. RUNOFF COMPUTED FOR NON-SNOWCOVERED AREAS ONLY
1 = PREC. RUNOFF COMPUTED FOR ALL AREAS

RANGQ/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR IELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1974 RUN OF MODEL MADE 10/ 6/81

COMPUTED DAILY RUNOFF FOR ZONE 1

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	0.0	0.0	0.0	97.1	0.0
2	0.0	0.0	0.0	0.0	40.5	0.0
3	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	64.7	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0
6	801.3	0.0	0.0	0.0	0.0	0.0
7	393.3	0.0	0.0	80.9	24.3	0.0
8	358.9	0.0	184.5	121.4	48.6	0.0
9	653.4	0.0	0.0	0.0	267.1	64.7
10	21.6	0.0	0.0	0.0	0.0	24.3
11	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	105.2
15	36.6	0.0	0.0	226.6	0.0	647.5
16	41.3	0.0	0.0	24.3	0.0	0.0
17	54.3	0.0	0.0	0.0	0.0	0.0
18	178.0	0.0	0.0	534.2	0.0	0.0
19	241.5	0.0	0.0	16.2	40.5	0.0
20	8.7	0.0	0.0	0.0	40.5	0.0
21	12.5	0.0	0.0	0.0	40.5	0.0
22	15.8	0.0	0.0	0.0	48.6	0.0
23	22.2	0.0	0.0	0.0	0.0	0.0
24	234.3	0.0	0.0	80.9	0.0	0.0
25	0.0	0.0	48.6	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	0.0	0.0	186.2	178.1	64.7
28	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	38.8	24.3	0.0	0.0
31	0.0	0.0	0.0	259.0	0.0	0.0

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1974 RUN OF MODEL MADE 10/ 6/81

COMPUTED DAILY RUNOFF FOR ZONE 2

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	240.8	0.0	0.0	160.0	0.0
2	0.0	450.0	0.0	0.0	66.7	0.0
3	0.0	137.3	0.0	0.0	0.0	0.0
4	0.0	297.6	0.0	0.0	106.7	0.0
5	0.0	329.4	0.0	0.0	0.0	0.0
6	0.0	354.6	0.0	0.0	0.0	0.0
7	0.0	449.4	0.0	133.4	40.0	0.0
8	401.9	343.3	506.8	200.1	80.0	0.0
9	0.0	258.1	0.0	0.0	440.1	106.7
10	0.0	259.0	0.0	0.0	0.0	40.0
11	0.0	257.2	0.0	0.0	0.0	0.0
12	0.0	224.9	0.0	0.0	0.0	0.0
13	0.0	130.7	0.0	0.0	0.0	0.0
14	0.0	163.4	0.0	0.0	0.0	0.0
15	0.0	144.6	0.0	373.4	0.0	173.4
16	275.3	143.2	0.0	40.0	0.0	1067.0
17	923.4	128.2	0.0	0.0	0.0	0.0
18	0.7	105.1	0.0	880.2	0.0	0.0
19	0.0	93.7	0.0	26.7	66.7	0.0
20	0.0	31.9	0.0	0.0	66.7	0.0
21	304.1	20.1	0.0	0.0	66.7	0.0
22	1166.7	4.3	0.0	0.0	80.0	0.0
23	2704.2	6.6	0.0	0.0	0.0	0.0
24	909.8	1.4	0.0	133.4	0.0	0.0
25	325.6	0.0	80.0	0.0	0.0	0.0
26	235.5	0.0	0.0	0.0	0.0	0.0
27	173.8	0.0	0.0	306.7	293.0	106.7
28	113.1	0.0	0.0	0.0	0.0	0.0
29	104.2	0.0	0.0	0.0	0.0	0.0
30	126.8	0.0	64.0	40.0	0.0	0.0
31	0.0	0.0	426.8	0.0	0.0	0.0

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1974 RUN OF MODEL MADE 10/ 6/81

COMPUTED DAILY RUNOFF FOR ZONE 3

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	0.0	1433.9	0.0	421.9	0.0
2	0.0	2912.2	760.7	0.0	316.4	0.0
3	0.0	0.0	832.9	0.0	527.4	0.0
4	0.0	928.2	529.8	0.0	696.1	0.0
5	0.0	2895.0	170.2	0.0	0.0	0.0
6	0.0	3614.4	0.0	0.0	0.0	0.0
7	0.0	6040.4	0.0	582.2	970.3	0.0
8	0.0	3425.9	2013.6	0.0	232.0	0.0
9	0.0	2190.4	317.9	0.0	907.1	232.0
10	0.0	3386.9	345.2	0.0	0.0	0.0
11	0.0	3733.3	371.1	0.0	485.2	0.0
12	0.0	3661.5	413.3	0.0	0.0	0.0
13	0.0	677.0	327.4	1265.7	0.0	421.9
14	0.0	3463.5	245.1	1746.6	0.0	843.8
15	0.0	2313.7	237.2	936.6	0.0	0.0
16	0.0	2202.2	216.2	464.1	0.0	611.7
17	0.0	2712.0	128.0	1539.9	0.0	0.0
18	0.0	2787.6	122.1	0.0	0.0	0.0
19	0.0	2486.0	101.8	0.0	886.0	0.0
20	0.0	292.0	63.7	105.5	0.0	0.0
21	0.0	314.0	6.6	590.6	0.0	0.0
22	1433.4	0.0	0.0	0.0	0.0	1012.5
23	8092.0	0.0	0.0	253.1	0.0	991.4
24	1833.9	0.0	126.6	1476.6	0.0	0.0
25	1228.9	1635.7	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	126.6
27	0.0	0.0	0.0	147.7	0.0	0.0
28	0.0	1905.2	0.0	1413.3	0.0	0.0
29	0.0	1863.0	0.0	0.0	0.0	0.0
30	193.9	1546.9	0.0	0.0	0.0	0.0
31		1130.2		485.2	0.0	

ORIGINAL PAGE IS
OF POOR QUALITY

RANDBO/MARTIN-ED MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELMORIE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1974 RUN OF MODEL MADE 10/ 6/81

DAY	STREAMFLOW FOR APRIL			STREAMFLOW FOR MAY			STREAMFLOW FOR JUNE			STREAMFLOW FOR JULY			STREAMFLOW FOR AUGUST			STREAMFLOW FOR SEPTEMBER		
	COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS	
1	339.	359.		856.	736.		1436.	1711.		346.	488.		514.	358.		232.	198.	
2	339.	357.		853.	851.		1430.	1333.		330.	457.		523.	375.		221.	194.	
3	321.	310.		989.	1000.		1379.	1064.		312.	406.		517.	405.		211.	184.	
4	304.	276.		938.	1164.		1335.	1152.		296.	336.		520.	472.		201.	176.	
5	289.	260.		983.	1262.		1271.	1258.		261.	339.		536.	423.		192.	170.	
6	285.	287.		1150.	1210.		1186.	905.		271.	332.		503.	377.		184.	161.	
7	301.	278.		1388.	1208.		1098.	908.		257.	353.		479.	359.		176.	155.	
8	312.	276.		1745.	1519.		1037.	916.		281.	371.		508.	389.		168.	146.	
9	337.	317.		1890.	1954.		1141.	815.		282.	365.		506.	414.		163.	146.	
10	345.	299.		1950.	2392.		1080.	818.		268.	330.		564.	495.		172.	146.	
11	327.	261.		2094.	2658.		1027.	833.		254.	296.		532.	450.		167.	158.	
12	310.	280.		2250.	2631.		980.	836.		242.	264.		526.	402.		160.	155.	
13	294.	251.		2349.	2931.		939.	1101.		236.	258.		494.	372.		155.	149.	
14	279.	228.		2252.	2154.		896.	951.		287.	264.		465.	348.		158.	138.	
15	245.	247.		2354.	1915.		850.	1105.		360.	302.		437.	325.		210.	207.	
16	257.	279.		2341.	2180.		808.	1024.		419.	405.		412.	313.		274.	236.	
17	267.	310.		2365.	2453.		767.	1001.		430.	401.		389.	286.		208.	211.	
18	293.	366.		2406.	2056.		724.	1005.		493.	437.		367.	270.		274.	193.	
19	285.	404.		2443.	2225.		684.	878.		541.	497.		352.	237.		260.	179.	
20	263.	395.		2429.	1664.		646.	852.		511.	461.		382.	257.		247.	197.	
21	273.	344.		2248.	1275.		608.	799.		489.	394.		367.	247.		235.	193.	
22	296.	272.		2082.	1272.		570.	766.		492.	418.		353.	236.		228.	193.	
23	502.	440.		1979.	1435.		535.	753.		464.	400.		340.	234.		265.	202.	
24	1026.	511.		1753.	1542.		503.	712.		459.	396.		322.	247.		297.	197.	
25	1146.	579.		1627.	1187.		480.	542.		522.	402.		305.	241.		281.	202.	
26	1157.	785.		1613.	1866.		459.	621.		491.	366.		289.	225.		268.	202.	
27	1088.	830.		1485.	1992.		432.	619.		465.	360.		276.	225.		261.	202.	
28	1020.	770.		1396.	2020.		407.	587.		479.	384.		284.	193.		256.	188.	
29	955.	737.		1425.	2075.		384.	555.		527.	384.		270.	173.		243.	173.	
30	898.	664.		1456.	2010.		363.	501.		495.	357.		256.	188.		232.	170.	
31				1459.	1999.					475.	339.		244.	189.				

RANGO/HARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

SUMMARY OF THE MODEL RUN FOR THE YEAR OF 1974 RUN OF MODEL MADE 10/ 6/81

NASH-SUTCLIFFE GOODNESS OF FIT METHOD - NSR**2 = 0.8696

ACTUAL SEASON VOLUME = 120098.000 CFS-DAYS

COMPUTED SEASON VOLUME = 125937.555 CFS-DAYS

SEASONAL DIFFERENCE IN PERCENT = 4.64

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1975 RUN OF MODEL MADE 10/ 6/81

DAILY CLIMATOLOGICAL DATA FOR ZONE 1

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.39	1.000	4.24	0.00	0.630	17.56	0.00	0.018	27.93	0.00	0.000	25.62	0.00	0.000	25.74	0.00	0.000
2	0.00	0.00	1.000	6.05	0.05	0.585	19.62	0.00	0.013	27.99	0.00	0.000	24.50	0.00	0.000	25.87	0.00	0.000
3	0.00	0.00	1.000	7.18	0.00	0.550	20.24	0.00	0.009	26.74	0.00	0.000	22.68	0.00	0.000	23.81	0.00	0.000
4	3.55	0.00	1.000	7.11	0.00	0.505	22.99	0.00	0.008	26.56	0.60	0.000	24.93	0.00	0.000	23.24	0.09	0.000
5	5.49	0.00	1.000	8.55	0.20	0.463	22.06	0.00	0.002	26.56	0.00	0.000	26.99	0.00	0.000	20.37	0.00	0.000
6	5.18	0.00	1.000	9.09	0.04	0.420	22.06	0.00	0.000	27.99	0.00	0.000	27.62	0.00	0.000	21.74	0.00	0.000
7	2.37	0.17	1.000	0.00	0.00	0.385	21.87	0.00	0.000	27.99	0.00	0.000	29.93	0.03	0.000	20.43	0.00	0.000
8	0.00	0.11	1.000	7.61	0.00	0.350	20.81	0.00	0.000	29.18	0.60	0.000	29.31	0.00	0.000	21.24	0.06	0.000
9	0.00	0.00	1.000	9.99	0.00	0.310	14.99	0.00	0.000	23.49	0.21	0.000	25.93	0.08	0.000	20.75	0.20	0.000
10	0.00	0.16	0.978	14.55	0.00	0.280	12.06	0.30	0.000	26.81	0.00	0.000	25.31	0.00	0.000	20.18	0.00	0.000
11	0.00	0.43	0.991	15.30	0.00	0.255	10.81	0.00	0.000	25.24	0.12	0.000	26.43	0.08	0.000	18.81	0.20	0.000
12	0.00	0.39	0.998	12.55	0.00	0.228	15.99	0.00	0.000	25.99	0.00	0.000	25.74	0.00	0.000	15.56	0.30	0.000
13	0.24	0.33	0.979	13.74	0.00	0.209	21.49	0.00	0.000	25.37	0.04	0.000	23.31	0.05	0.000	14.00	0.15	0.000
14	0.00	0.00	0.972	16.61	0.00	0.188	21.49	0.00	0.000	25.62	0.00	0.000	21.50	0.08	0.000	15.56	0.10	0.000
15	2.99	0.00	0.962	18.68	0.00	0.170	24.24	0.00	0.000	26.12	0.05	0.000	22.18	0.00	0.000	17.93	0.00	0.000
16	8.00	0.00	0.956	18.62	0.00	0.156	20.05	0.02	0.000	23.74	0.01	0.000	23.50	0.00	0.000	19.81	0.00	0.000
17	7.68	0.06	0.949	16.99	0.01	0.140	20.87	0.00	0.000	26.06	0.02	0.000	23.31	0.00	0.000	22.31	0.00	0.000
18	0.00	0.02	0.938	18.49	0.00	0.121	23.68	0.09	0.000	26.12	0.00	0.000	25.30	0.00	0.000	20.68	0.00	0.000
19	0.00	0.00	0.928	14.37	0.01	0.110	12.87	0.00	0.000	29.12	0.00	0.000	21.87	0.00	0.000	16.56	0.00	0.000
20	7.37	0.00	0.912	17.55	0.00	0.098	15.93	0.00	0.000	28.18	0.00	0.000	22.24	0.00	0.000	14.62	0.00	0.000
21	9.99	0.00	0.901	14.86	0.09	0.089	17.18	0.00	0.000	27.37	0.00	0.000	23.24	0.08	0.000	10.81	0.03	0.000
22	11.68	0.00	0.888	10.86	0.00	0.080	16.68	0.00	0.000	29.62	0.00	0.000	21.68	0.12	0.000	11.56	0.00	0.000
23	10.93	0.00	0.870	2.62	0.07	0.072	21.56	0.00	0.000	28.56	0.00	0.000	24.43	0.00	0.000	14.68	0.00	0.000
24	10.49	0.00	0.851	10.43	0.00	0.064	23.49	0.00	0.000	23.50	0.00	0.000	26.18	0.00	0.000	14.81	0.00	0.000
25	13.18	0.00	0.830	17.24	0.00	0.057	21.87	0.00	0.000	24.43	0.07	0.000	23.56	0.00	0.000	17.18	0.00	0.000
26	12.93	0.14	0.805	18.49	0.00	0.049	19.31	0.00	0.000	24.62	0.00	0.000	24.12	0.00	0.000	16.74	0.00	0.000
27	1.17	0.09	0.770	18.06	0.06	0.043	23.68	0.00	0.000	25.43	0.00	0.000	24.24	0.03	0.000	17.87	0.00	0.000
28	0.00	0.00	0.740	16.74	0.06	0.038	24.87	0.00	0.000	25.37	0.00	0.000	22.93	0.09	0.000	16.06	0.00	0.000
29	0.00	0.00	0.700	8.62	0.00	0.031	25.18	0.00	0.000	25.31	0.30	0.000	22.62	0.00	0.000	16.18	0.00	0.000
30	0.00	0.00	0.660	12.81	0.00	0.028	25.37	0.00	0.000	22.18	0.00	0.000	25.31	0.00	0.000	14.56	0.00	0.000
31				14.43	0.01	0.021	24.24	0.00	0.000	25.50	0.00	0.000						

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1975 RUN OF MODEL MADE 10/ 6/81

DAILY CLIMATOLOGICAL DATA FOR ZONE 2

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.71	1.000	0.00	0.00	0.968	12.11	0.00	0.140	23.01	0.00	0.000	20.95	0.00	0.000	20.56	0.00	0.000
2	0.00	0.00	1.000	0.00	0.11	0.960	14.95	0.00	0.120	21.77	0.00	0.000	20.35	0.00	0.000	20.16	0.00	0.000
3	0.00	0.00	1.000	0.00	0.00	0.953	15.04	0.00	0.100	21.56	0.00	0.000	18.79	0.00	0.000	19.40	0.00	0.000
4	0.00	0.00	1.000	0.00	0.00	0.947	16.77	0.00	0.085	21.11	0.60	0.000	20.01	0.00	0.000	18.06	0.09	0.000
5	0.00	0.00	1.000	0.00	0.47	0.940	16.61	0.00	0.072	21.11	0.00	0.000	20.77	0.00	0.000	16.74	0.00	0.000
6	0.00	0.00	1.000	0.00	0.02	0.932	16.61	0.00	0.062	21.72	0.00	0.000	22.95	0.00	0.000	16.56	0.00	0.000
7	0.00	0.40	1.000	0.00	0.00	0.922	16.16	0.00	0.051	21.77	0.00	0.000	25.01	0.03	0.000	15.51	0.00	0.000
8	0.00	0.25	1.000	0.00	0.00	0.913	16.40	0.00	0.042	23.22	0.60	0.000	24.90	0.00	0.000	13.98	0.06	0.000
9	0.00	0.00	1.000	1.69	0.00	0.902	8.77	0.00	0.032	17.27	0.21	0.000	23.08	0.08	0.000	17.64	0.20	0.000
10	0.00	0.38	1.000	4.96	0.00	0.890	6.61	0.30	0.025	20.32	0.00	0.000	20.90	0.00	0.000	16.29	0.00	0.000
11	0.00	0.74	1.000	4.67	0.00	0.875	6.40	0.00	0.018	20.06	0.12	0.000	19.43	0.08	0.000	16.48	0.20	0.000
12	0.00	0.34	1.000	2.96	0.00	0.860	9.77	0.00	0.008	19.77	0.00	0.000	18.48	0.00	0.000	12.19	0.30	0.000
13	0.00	0.10	1.000	4.41	0.00	0.840	13.19	0.00	0.000	19.66	0.04	0.000	16.82	0.03	0.000	9.85	0.15	0.000
14	0.00	0.00	1.000	5.72	0.00	0.820	15.27	0.00	0.000	20.95	0.00	0.000	17.35	0.08	0.000	10.11	0.10	0.000
15	0.00	0.00	1.000	12.72	0.00	0.799	16.98	0.00	0.000	21.45	0.05	0.000	18.29	0.00	0.000	13.01	0.00	0.000
16	3.85	0.00	1.000	13.95	0.00	0.770	12.54	0.02	0.000	18.56	0.01	0.000	19.35	0.00	0.000	15.40	0.00	0.000
17	0.00	0.13	1.000	10.77	0.02	0.730	15.16	0.00	0.000	20.61	0.02	0.000	18.90	0.00	0.000	15.82	0.00	0.000
18	0.00	0.03	1.000	10.19	0.00	0.680	19.79	0.09	0.000	19.38	0.00	0.000	16.75	0.00	0.000	14.72	0.00	0.000
19	0.00	0.00	1.000	8.66	0.03	0.630	7.16	0.00	0.000	22.38	0.00	0.000	16.16	0.00	0.000	11.11	0.00	0.000
20	0.00	0.00	1.000	7.96	0.00	0.580	8.93	0.00	0.000	24.29	0.00	0.000	14.98	0.00	0.000	12.03	0.00	0.000
21	3.77	0.00	1.000	7.01	0.22	0.540	11.22	0.00	0.000	21.66	0.00	0.000	18.06	0.08	0.000	6.40	0.03	0.000
22	5.72	0.00	0.998	1.01	0.00	0.490	10.72	0.00	0.000	24.95	0.00	0.000	17.79	0.12	0.000	8.19	0.00	0.000
23	6.01	0.00	0.997	0.00	0.09	0.440	16.11	0.00	0.000	23.11	0.00	0.000	19.51	0.00	0.000	10.79	0.00	0.000
24	2.19	0.00	0.992	3.43	0.00	0.390	17.27	0.00	0.000	21.35	0.00	0.000	22.29	0.00	0.000	10.40	0.00	0.000
25	7.22	0.00	0.990	9.98	0.00	0.340	18.24	0.00	0.000	19.51	0.07	0.000	20.19	0.00	0.000	13.29	0.00	0.000
26	8.01	0.34	0.988	12.27	0.00	0.300	14.90	0.00	0.000	19.95	0.00	0.000	19.45	0.00	0.000	11.56	0.00	0.000
27	0.00	0.21	0.985	12.61	0.12	0.270	17.72	0.00	0.000	20.51	0.00	0.000	19.06	0.03	0.000	12.16	0.00	0.000
28	0.00	0.00	0.980	7.41	0.13	0.240	19.16	0.00	0.000	19.66	0.00	0.000	15.93	0.09	0.000	12.69	0.00	0.000
29	0.00	0.00	0.975	1.88	0.00	0.210	19.22	0.00	0.000	20.90	0.30	0.000	17.95	0.00	0.000	12.29	0.00	0.000
30	0.00	0.00	0.970	6.32	0.00	0.185	19.66	0.00	0.000	16.22	0.00	0.000	20.90	0.00	0.000	11.19	0.00	0.000
31				7.43	0.00	0.160				19.06	0.00	0.000	21.35	0.00	0.000			

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELMORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1975 RUN OF MODEL MADE 10/ 6/81

DAILY CLIMATOLOGICAL DATA FOR ZONE 3

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	1.01	1.000	0.00	0.00	1.000	6.88	0.00	0.675	18.27	0.00	0.069	16.47	0.00	0.000	15.57	0.00	0.000
2	0.00	0.00	1.000	0.00	0.17	1.000	10.47	0.00	0.650	15.79	0.00	0.060	16.36	0.00	0.000	14.68	0.00	0.000
3	0.00	0.00	1.000	0.00	0.00	1.000	10.07	0.00	0.620	16.57	0.00	0.051	15.05	0.00	0.000	15.16	0.04	0.000
4	0.00	0.00	1.000	0.00	0.00	1.000	10.79	0.00	0.580	15.88	0.00	0.243	15.27	0.00	0.000	13.07	0.05	0.000
5	0.00	0.00	1.000	0.00	0.74	1.000	11.38	0.00	0.558	15.88	0.03	0.039	14.79	0.00	0.000	13.25	0.11	0.000
6	0.00	0.00	1.000	0.00	0.14	1.000	11.38	0.00	0.530	15.79	0.00	0.031	18.47	0.00	0.000	11.57	0.00	0.000
7	0.00	0.63	1.000	0.00	0.00	1.000	10.68	0.15	0.549	15.79	0.02	0.028	20.27	0.00	0.000	10.77	0.09	0.000
8	0.00	0.39	1.000	0.00	0.00	0.995	12.16	0.16	0.465	17.48	0.19	0.020	20.66	0.00	0.000	7.00	0.06	0.000
9	0.00	0.00	1.000	0.00	0.00	0.990	2.79	0.15	0.435	11.29	0.58	0.015	20.34	0.00	0.000	14.64	0.00	0.000
10	0.00	0.60	1.000	0.00	0.00	0.982	1.38	0.00	0.410	14.09	0.21	0.010	16.66	0.20	0.000	12.55	0.00	0.000
11	0.00	1.04	1.000	0.00	0.00	0.979	2.16	0.00	0.380	15.07	0.00	0.008	12.70	0.15	0.000	14.23	0.83	0.000
12	0.00	0.33	1.000	0.00	0.00	0.970	3.79	0.00	0.360	13.79	0.20	0.001	11.50	0.13	0.000	8.95	0.10	0.000
13	0.00	0.05	1.000	0.00	0.00	0.962	5.22	0.00	0.340	14.18	0.35	0.000	10.59	0.00	0.000	5.86	0.76	0.000
14	0.00	0.00	1.000	0.00	0.00	0.952	9.29	0.00	0.310	16.47	0.00	0.000	13.36	0.07	0.000	4.88	0.00	0.000
15	0.00	0.00	1.000	6.98	0.00	0.943	10.00	0.00	0.290	16.97	0.32	0.000	14.55	0.00	0.000	8.27	0.00	0.000
16	0.00	0.00	1.000	9.47	0.00	0.938	5.31	0.00	0.268	13.57	0.25	0.000	15.36	0.00	0.000	11.16	0.00	0.000
17	0.00	0.21	1.000	4.79	0.03	0.928	9.68	0.00	0.245	15.38	0.00	0.000	14.66	0.00	0.000	9.59	0.00	0.000
18	0.00	0.04	1.000	2.22	0.00	0.918	16.05	0.00	0.225	12.89	0.00	0.000	8.52	0.06	0.000	8.98	0.00	0.000
19	0.00	0.00	1.000	3.18	0.04	0.905	1.68	1.44	0.210	15.89	0.00	0.000	10.68	0.00	0.000	5.88	0.00	0.000
20	0.00	0.00	1.000	0.00	0.00	0.895	2.20	0.00	0.193	20.55	0.36	0.000	8.00	0.63	0.000	9.54	0.27	0.000
21	0.00	0.00	1.000	0.00	0.35	0.881	5.48	0.00	0.180	16.18	0.00	0.000	13.07	0.12	0.000	2.16	0.00	0.000
22	0.00	0.00	1.000	0.00	0.00	0.870	4.98	0.00	0.165	20.47	0.00	0.000	14.05	0.00	0.000	4.95	0.00	0.000
23	1.27	0.00	1.000	0.00	0.11	0.856	10.88	0.00	0.151	17.88	0.00	0.000	14.77	0.00	0.000	7.05	0.00	0.000
24	0.00	0.00	1.000	0.00	0.00	0.840	11.29	0.00	0.140	17.36	0.00	0.000	18.36	0.00	0.000	6.16	0.00	0.000
25	1.48	0.00	1.000	3.00	0.00	0.821	14.75	0.00	0.128	14.77	0.35	0.000	16.95	0.00	0.000	9.55	0.00	0.000
26	3.27	0.53	1.000	6.29	0.00	0.810	10.66	0.00	0.118	15.47	0.00	0.000	14.97	0.18	0.000	6.57	0.00	0.000
27	0.00	0.32	1.000	7.38	0.17	0.790	11.98	0.00	0.105	15.77	0.29	0.000	14.07	0.00	0.000	6.68	0.00	0.000
28	0.00	0.00	1.000	0.00	0.21	0.770	13.68	0.00	0.095	14.18	0.00	0.000	9.20	0.00	0.000	9.45	0.00	0.000
29	0.00	0.00	1.000	0.00	0.00	0.750	13.48	0.00	0.087	16.66	2.38	0.000	13.47	0.00	0.000	8.55	0.00	0.000
30	0.00	0.00	1.000	0.00	0.00	0.728	14.18	0.00	0.078	10.48	0.00	0.000	16.64	0.00	0.000	7.95	0.00	0.000
31	0.00	0.00	1.000	0.70	0.00	0.700				14.07	0.00	0.000	17.36	0.00	0.000			

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1975 RUN OF MODEL MADE 10/ 6/81

WATERSHED MELT AND RUNOFF COEFFICIENTS

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	1	15	30	1	15	30	1	15	30	1	15	30	1	15	30	1	15	30
DATA FOR ZONE 1:																		
MELT FACTORS	0.050	0.050	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070
RUNOFF COEF.	0.600	0.400	0.300	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150
PREC. METHOD	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
DATA FOR ZONE 2:																		
MELT FACTORS	0.040	0.040	0.080	0.100	0.100	0.120	0.120	0.120	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
RUNOFF COEF.	0.750	0.750	0.750	0.700	0.700	0.600	0.600	0.600	0.600	0.550	0.550	0.300	0.150	0.150	0.150	0.150	0.150	0.150
PREC. METHOD	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
DATA FOR ZONE 3:																		
MELT FACTORS	0.030	0.040	0.080	0.080	0.080	0.100	0.100	0.100	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160
RUNOFF COEF.	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.850	0.850	0.850	0.850	0.500	0.200	0.200	0.200	0.200	0.200	0.200
PREC. METHOD	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1

NOTE: PREC. METHOD:
0 = PREC. RUNOFF COMPUTED FOR NON-SNOWCOVERED AREAS ONLY
1 = PREC. RUNOFF COMPUTED FOR ALL AREAS

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RANGB/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1975 RUN OF MODEL MADE 10/ 6/81

COMPUTED DAILY RUNOFF FOR ZONE 1

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	534.9	26.9	0.0	0.0	0.0
2	0.0	651.9	21.7	0.0	0.0	0.0
3	0.0	671.2	15.5	0.0	0.0	0.0
4	862.0	610.3	15.6	728.4	0.0	109.3
5	1333.0	933.6	3.7	0.0	0.0	0.0
6	1257.7	0.0	0.0	0.0	0.0	0.0
7	575.5	0.0	0.0	0.0	36.4	0.0
8	0.0	515.8	0.0	728.4	0.0	72.8
9	0.0	526.4	0.0	254.9	97.1	242.8
10	0.0	692.4	364.2	0.0	0.0	0.0
11	0.0	663.1	0.0	145.7	97.1	242.8
12	0.0	486.3	0.0	0.0	0.0	364.2
13	57.0	488.1	0.0	48.6	60.7	182.1
14	0.0	530.7	0.0	0.0	97.1	121.4
15	698.4	539.7	0.0	60.7	0.0	0.0
16	1238.0	246.9	24.3	12.1	0.0	0.0
17	1189.7	214.3	0.0	24.3	0.0	0.0
18	0.0	190.1	109.3	0.0	0.0	0.0
19	0.0	146.5	0.0	0.0	0.0	0.0
20	1088.0	146.2	0.0	0.0	0.0	0.0
21	1457.0	236.8	0.0	0.0	97.1	36.4
22	1678.9	73.8	0.0	0.0	145.7	0.0
23	1539.2	101.0	0.0	0.0	0.0	0.0
24	1445.0	56.7	0.0	0.0	0.0	0.0
25	1770.8	83.5	0.0	85.0	0.0	0.0
26	1773.2	77.0	0.0	0.0	0.0	0.0
27	145.8	138.8	0.0	0.0	36.4	0.0
28	0.0	126.9	0.0	0.0	109.3	0.0
29	0.0	22.7	0.0	364.2	0.0	0.0
30	0.0	30.5	0.0	0.0	0.0	0.0
31		37.9		0.0	0.0	

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1975 RUN OF MODEL MADE 10/ 6/81

COMPUTED DAILY RUNOFF FOR ZONE 2

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	0.0	1628.0	0.0	0.0	0.0
2	0.0	0.0	1722.7	0.0	0.0	0.0
3	0.0	0.0	1446.1	0.0	0.0	0.0
4	0.0	0.0	1368.8	4401.2	0.0	180.0
5	0.0	0.0	1148.4	0.0	0.0	0.0
6	0.0	0.0	988.9	0.0	0.0	0.0
7	0.0	0.0	791.4	0.0	60.0	0.0
8	0.0	0.0	661.4	4401.2	0.0	120.0
9	0.0	1219.8	269.5	1540.4	160.0	400.1
10	0.0	3532.5	2559.3	0.0	0.0	0.0
11	0.0	3269.9	110.6	880.2	160.0	400.1
12	0.0	2037.0	75.1	0.0	0.0	600.2
13	0.0	2964.3	0.0	293.4	100.0	300.1
14	0.0	3753.3	0.0	0.0	160.0	200.1
15	0.0	8132.8	0.0	366.8	0.0	0.0
16	1540.4	10028.1	160.0	40.0	0.0	0.0
17	0.0	7390.3	0.0	80.0	0.0	0.0
18	0.0	6469.0	720.2	0.0	0.0	0.0
19	0.0	5197.1	0.0	0.0	0.0	0.0
20	0.0	4310.2	0.0	0.0	0.0	0.0
21	1508.4	4778.8	0.0	0.0	160.0	60.0
22	2284.0	462.0	0.0	0.0	240.1	0.0
23	2397.4	0.0	0.0	0.0	0.0	0.0
24	869.2	1761.4	0.0	0.0	0.0	0.0
25	2859.9	3167.8	0.0	280.1	0.0	0.0
26	3207.2	3436.5	0.0	0.0	0.0	0.0
27	0.0	3996.4	0.0	0.0	60.0	0.0
28	0.0	2582.7	0.0	0.0	180.0	0.0
29	0.0	368.6	0.0	1200.3	0.0	0.0
30	0.0	1091.5	0.0	0.0	0.0	0.0
31		1109.8		0.0	0.0	

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1975 RUN OF MODEL MADE 10/ 6/81

COMPUTED DAILY RUNOFF FOR ZONE 3

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	0.0	5761.4	2411.0	0.0	0.0
2	0.0	0.0	7656.4	1812.0	0.0	0.0
3	0.0	0.0	7024.0	1616.2	0.0	112.5
4	0.0	0.0	7040.7	1306.0	0.0	140.6
5	0.0	0.0	7144.0	1543.1	0.0	309.4
6	0.0	0.0	6785.5	936.2	0.0	0.0
7	0.0	0.0	7357.5	1084.6	0.0	253.1
8	0.0	0.0	7324.4	2939.8	0.0	168.8
9	0.0	0.0	2318.9	7256.9	0.0	0.0
10	0.0	0.0	636.5	2779.7	562.5	0.0
11	0.0	0.0	923.4	230.6	421.9	2334.4
12	0.0	0.0	1535.0	2417.1	365.6	281.3
13	0.0	0.0	1996.7	4183.7	0.0	2137.6
14	0.0	0.0	3240.0	0.0	196.9	0.0
15	0.0	5924.1	3262.6	3825.1	0.0	0.0
16	0.0	7994.8	2721.7	1757.9	0.0	0.0
17	0.0	4025.0	4535.8	0.0	0.0	0.0
18	0.0	1834.2	6906.7	0.0	168.8	0.0
19	0.0	2632.9	674.7	0.0	0.0	0.0
20	0.0	0.0	4207.6	2531.3	1771.9	759.4
21	0.0	0.0	10480.8	0.0	337.5	0.0
22	0.0	0.0	3679.6	0.0	0.0	0.0
23	571.5	0.0	3142.1	0.0	0.0	0.0
24	0.0	0.0	3023.0	0.0	0.0	0.0
25	666.0	2700.1	3610.9	2461.0	0.0	0.0
26	1471.5	5055.8	2405.8	0.0	506.3	0.0
27	0.0	5447.0	2405.8	2039.1	0.0	0.0
28	0.0	0.0	2485.6	0.0	0.0	0.0
29	0.0	0.0	2243.0	16734.8	0.0	0.0
30	0.0	81.0	2115.4	0.0	0.0	0.0
31		630.0		0.0	0.0	0.0

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1975 RUN OF MODEL MADE 10/ 6/81

DAY	STREAMFLOW FOR APRIL			STREAMFLOW FOR MAY			STREAMFLOW FOR JUNE			STREAMFLOW FOR JULY			STREAMFLOW FOR AUGUST			STREAMFLOW FOR SEPTEMBER		
	COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS	
1	177.	177.		1286.	715.		4032.	3254.		3528.	4683.		2379.	1188.		436.	364.	
2	169.	59.		1232.	789.		4378.	3839.		3420.	4800.		2176.	1043.		411.	353.	
3	162.	205.		1188.	782.		4839.	5260.		3271.	4702.		1992.	987.		388.	361.	
4	168.	217.		1148.	1119.		5187.	6160.		3161.	4989.		1828.	905.		374.	356.	
5	203.	273.		1116.	1333.		5500.	6723.		3416.	4606.		1679.	850.		377.	397.	
6	253.	343.		1082.	1020.		5766.	7085.		3239.	4685.		1545.	722.		371.	337.	
7	290.	389.		1003.	878.		5973.	6707.		3032.	4233.		1424.	832.		352.	357.	
8	295.	306.		942.	721.		6182.	6426.		2914.	4010.		1321.	841.		347.	373.	
9	280.	278.		937.	825.		6287.	6116.		3380.	3959.		1222.	835.		349.	427.	
10	266.	289.		1043.	1144.		5925.	5619.		3846.	3965.		1152.	740.		362.	405.	
11	253.	285.		1266.	1624.		5654.	4562.		3733.	3866.		1109.	705.		357.	375.	
12	240.	269.		1436.	2049.		5201.	4380.		3513.	3566.		1076.	654.		491.	510.	
13	230.	274.		1539.	2264.		4853.	5103.		3429.	3408.		1023.	1028.		543.	509.	
14	221.	269.		1706.	2740.		4589.	6049.		3493.	3128.		963.	874.		658.	497.	
15	221.	290.		2132.	3166.		4459.	6698.		3207.	2912.		924.	782.		635.	523.	
16	276.	361.		3253.	3681.		4340.	7235.		3282.	2831.		859.	686.		594.	433.	
17	374.	401.		4450.	3865.		4220.	6426.		3134.	2944.		800.	660.		557.	387.	
18	397.	366.		5055.	3857.		4283.	5939.		2861.	2520.		747.	687.		522.	371.	
19	375.	324.		5373.	4055.		4537.	5378.		2607.	2150.		707.	577.		491.	324.	
20	374.	384.		5543.	4298.		4203.	4040.		2400.	1956.		671.	573.		465.	319.	
21	448.	474.		5438.	4066.		4266.	3759.		2392.	2127.		736.	604.		479.	336.	
22	614.	617.		5271.	3879.		4787.	3702.		2187.	1894.		725.	596.		456.	337.	
23	837.	743.		4795.	3269.		4674.	3903.		2003.	1780.		700.	551.		429.	322.	
24	1039.	809.		4376.	2739.		4525.	4453.		1837.	1746.		654.	542.		405.	316.	
25	1201.	1003.		4211.	3043.		4386.	5221.		1708.	1630.		612.	504.		382.	317.	
26	1533.	1249.		4423.	3584.		4300.	4699.		1777.	1627.		576.	480.		361.	317.	
27	1758.	1049.		4838.	4263.		4119.	4640.		1648.	1483.		570.	445.		341.	320.	
28	1624.	843.		5183.	4597.		3958.	4755.		1665.	1267.		541.	478.		323.	309.	
29	1495.	787.		4897.	3881.		3818.	4587.		1642.	1281.		524.	482.		306.	308.	
30	1379.	643.		4473.	3254.		3669.	4446.		2859.	1602.		492.	433.		290.	317.	
31				4168.	3186.					2606.	1278.		463.	432.				

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RANGQ/HARTINEC MODEL VERSION KCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

SUMMARY OF THE MODEL RUN FOR THE YEAR OF 1975 RUN OF MODEL MADE 10/ 6/81

NASH-SUTCLIFFE GOODNESS OF FIT METHOD - $NSS^2/12 = 0.9696$

ACTUAL SEASON VOLUME = 376347.000 CFS-DAYS

COMPUTED SEASON VOLUME = 387120.562 CFS-DAYS

SEASONAL DIFFERENCE IN PERCENT = 2.78

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1974 RUN OF MODEL MADE 10/ 6/81

DAILY CLIMATOLOGICAL DATA FOR ZONE 1

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	6.06	0.00	0.870	6.49	0.00	0.150	18.62	0.00	0.000	23.87	0.00	0.000	21.74	0.62	0.000	19.06	0.00	0.000
2	9.74	0.00	0.860	11.18	0.00	0.130	20.43	0.00	0.000	23.24	0.04	0.000	21.18	0.00	0.000	20.12	0.00	0.000
3	10.36	0.02	0.845	13.74	0.01	0.118	21.37	0.00	0.000	24.37	0.00	0.000	21.37	0.36	0.000	22.05	0.00	0.000
4	8.24	0.00	0.828	14.99	0.00	0.102	21.99	0.00	0.000	25.74	0.00	0.000	22.18	0.00	0.000	24.74	0.00	0.000
5	3.93	0.14	0.810	14.74	0.15	0.090	22.12	0.00	0.000	25.55	0.00	0.000	20.74	0.00	0.000	23.05	0.00	0.000
6	0.00	0.02	0.790	8.87	1.06	0.078	21.49	0.00	0.000	26.24	0.00	0.000	22.37	0.00	0.000	23.49	0.03	0.000
7	4.68	0.00	0.770	7.24	0.15	0.062	19.31	0.00	0.000	25.87	0.00	0.000	23.74	0.00	0.000	17.55	0.18	0.000
8	7.12	0.00	0.745	5.62	0.54	0.051	20.12	0.28	0.000	26.18	0.00	0.000	22.61	0.00	0.000	16.49	0.00	0.000
9	9.06	0.00	0.720	10.18	0.00	0.042	22.37	0.00	0.000	27.80	0.00	0.000	22.37	0.16	0.000	16.43	0.00	0.000
10	10.31	0.00	0.695	12.62	0.00	0.030	24.12	0.00	0.000	29.93	0.00	0.000	19.31	0.06	0.000	20.50	0.00	0.000
11	12.12	0.00	0.670	16.06	0.00	0.000	22.37	0.00	0.000	27.93	0.00	0.000	20.24	0.03	0.000	18.74	0.00	0.000
12	9.99	0.30	0.640	11.18	0.00	0.000	15.81	0.00	0.000	29.30	0.00	0.000	21.06	0.00	0.000	17.18	0.00	0.000
13	5.68	0.11	0.613	14.36	0.00	0.000	16.62	0.00	0.000	27.12	0.00	0.000	20.81	0.00	0.000	17.36	0.00	0.000
14	4.93	0.25	0.582	22.68	0.00	0.000	18.50	0.00	0.000	26.74	0.00	0.000	23.06	0.00	0.000	20.36	0.00	0.000
15	1.99	0.23	0.550	22.49	0.00	0.000	13.31	0.00	0.000	26.62	0.00	0.000	23.05	0.00	0.000	20.81	0.18	0.000
16	0.74	0.17	0.515	16.50	0.00	0.000	19.12	0.00	0.000	26.06	0.17	0.000	23.43	0.00	0.000	20.37	0.35	0.000
17	0.00	0.25	0.480	17.00	0.00	0.000	20.62	0.00	0.000	25.49	0.00	0.000	23.62	0.22	0.000	20.56	0.00	0.000
18	0.00	0.09	0.455	17.12	0.03	0.000	18.81	0.00	0.000	28.55	0.00	0.000	23.43	0.80	0.000	19.56	0.00	0.000
19	4.31	0.11	0.420	17.74	0.06	0.000	20.00	0.00	0.000	26.49	0.04	0.000	19.93	0.00	0.000	18.12	0.00	0.000
20	3.99	0.00	0.390	15.11	0.19	0.000	23.11	0.00	0.000	24.37	0.00	0.000	21.56	0.00	0.000	14.74	0.00	0.000
21	7.36	0.00	0.368	16.12	0.22	0.000	25.30	0.00	0.000	27.24	0.00	0.000	25.37	0.00	0.000	15.62	0.04	0.000
22	8.74	0.00	0.335	11.68	0.03	0.000	23.87	0.07	0.000	25.93	0.13	0.000	25.62	0.00	0.000	15.11	0.10	0.000
23	9.68	0.00	0.311	12.87	0.00	0.000	17.49	0.03	0.000	25.18	0.00	0.000	24.74	0.00	0.000	14.18	0.00	0.000
24	8.18	0.00	0.289	14.49	0.00	0.000	15.68	0.00	0.000	22.24	0.00	0.000	23.37	0.00	0.000	13.68	0.00	0.000
25	8.68	0.00	0.265	16.93	0.00	0.000	18.05	0.00	0.000	25.18	0.00	0.000	23.12	0.00	0.000	12.18	0.32	0.000
26	8.43	0.00	0.245	14.93	0.00	0.000	24.43	0.00	0.000	24.06	0.00	0.000	23.74	0.05	0.000	11.43	0.04	0.000
27	10.80	0.00	0.220	18.56	0.00	0.000	25.49	0.00	0.000	24.93	0.00	0.000	24.93	0.03	0.000	5.93	0.38	0.000
28	11.18	0.00	0.202	20.99	0.00	0.000	27.74	0.00	0.000	26.31	0.00	0.000	22.49	0.00	0.000	7.49	0.00	0.000
29	10.93	0.00	0.185	20.37	0.00	0.000	24.87	0.00	0.000	26.99	0.00	0.000	21.87	0.00	0.000	9.99	0.00	0.000
30	7.55	0.00	0.165	15.68	0.00	0.000	24.43	0.29	0.000	28.93	0.00	0.000	20.43	0.00	0.000	12.87	0.00	0.000
31				19.24	0.00	0.000				25.18	0.00	0.000	18.56	0.00	0.000			

RANGOMASTINEC MODEL VERSION KCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1976 RUN OF MODEL MADE 10/ 6/81

DAILY CLIMATOLOGICAL DATA FOR ZONE 2

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.61	0.00	1.000	0.00	0.00	0.770	11.88	0.00	0.029	18.16	0.00	0.000	14.48	0.62	0.000	15.69	0.00	0.000
2	4.54	0.00	1.000	3.14	0.00	0.710	15.51	0.00	0.023	18.06	0.06	0.000	15.22	0.00	0.000	15.45	0.00	0.000
3	7.19	0.05	1.000	6.48	0.02	0.655	15.66	0.00	0.020	18.66	0.00	0.000	15.66	0.36	0.000	14.54	0.00	0.000
4	3.06	0.00	1.000	6.69	0.00	0.605	15.77	0.00	0.015	18.48	0.00	0.000	14.14	0.00	0.000	17.48	0.00	0.000
5	0.00	0.34	1.000	7.48	0.37	0.555	15.38	0.00	0.011	18.04	0.00	0.000	15.56	0.00	0.000	15.54	0.00	0.000
6	0.00	0.00	1.000	7.32	1.38	0.505	15.27	0.00	0.009	16.91	0.00	0.000	14.59	0.00	0.000	7.27	0.03	0.000
7	0.00	0.00	1.000	2.06	0.09	0.458	12.82	0.00	0.004	18.09	0.00	0.000	16.48	0.00	0.000	.96	0.18	0.000
8	2.45	0.00	1.000	0.95	1.01	0.420	13.38	0.28	0.000	20.22	0.00	0.000	13.80	0.00	0.000	.19	0.00	0.000
9	3.61	0.00	1.000	4.22	0.00	0.388	14.59	0.00	0.000	19.25	0.00	0.000	16.66	0.16	0.000	7.35	0.00	0.000
10	3.82	0.00	1.000	5.88	0.00	0.330	17.38	0.00	0.000	20.85	0.00	0.000	14.90	0.06	0.000	16.35	0.00	0.000
11	5.38	0.00	1.000	10.61	0.00	0.330	14.59	0.00	0.000	20.93	0.00	0.000	15.06	0.05	0.000	11.48	0.00	0.000
12	3.77	0.41	1.000	3.14	0.00	0.305	11.40	0.00	0.000	20.75	0.00	0.000	15.61	0.00	0.000	7.07	0.00	0.000
13	0.00	0.26	1.000	4.51	0.00	0.280	9.88	0.00	0.000	20.38	0.00	0.000	14.32	0.00	0.000	7.51	0.00	0.000
14	0.00	0.59	1.000	14.64	0.00	0.253	14.35	0.00	0.000	19.48	0.00	0.000	17.61	0.00	0.000	10.51	0.00	0.000
15	0.00	0.40	1.000	16.27	0.00	0.232	8.90	0.00	0.000	19.88	0.00	0.000	15.54	0.00	0.000	14.32	0.18	0.000
16	0.00	0.39	1.000	12.35	0.00	0.213	12.38	0.00	0.000	20.61	0.17	0.000	18.51	0.00	0.000	14.66	0.35	0.000
17	0.00	0.35	1.000	12.85	0.00	0.195	13.88	0.00	0.000	19.27	0.00	0.000	18.95	0.22	0.000	15.11	0.00	0.000
18	0.00	0.22	1.000	14.53	0.07	0.172	14.40	0.00	0.000	21.04	0.00	0.000	18.51	0.80	0.000	14.11	0.00	0.000
19	0.00	0.02	1.000	10.48	0.13	0.155	15.85	0.00	0.000	20.27	0.04	0.000	15.01	0.00	0.000	13.45	0.00	0.000
20	0.00	0.00	0.995	6.30	0.46	0.133	14.30	0.00	0.000	18.66	0.00	0.000	16.11	0.00	0.000	7.48	0.00	0.000
21	0.00	0.00	0.989	9.38	0.11	0.120	14.67	0.00	0.000	19.98	0.00	0.000	19.66	0.00	0.000	8.88	0.04	0.000
22	1.48	0.00	0.979	7.79	0.01	0.110	16.09	0.07	0.000	18.93	0.13	0.000	18.88	0.00	0.000	6.30	0.10	0.000
23	1.64	0.00	0.969	7.16	0.00	0.098	11.27	0.03	0.000	19.22	0.00	0.000	19.56	0.00	0.000	6.14	0.00	0.000
24	0.14	0.00	0.958	8.27	0.00	0.085	11.79	0.00	0.000	17.06	0.00	0.000	15.59	0.00	0.000	3.57	0.00	0.000
25	0.64	0.00	0.943	12.01	0.00	0.075	10.54	0.00	0.000	17.14	0.00	0.000	16.38	0.00	0.000	2.07	0.32	0.000
26	1.43	0.00	0.929	10.01	0.00	0.069	17.43	0.00	0.000	18.61	0.00	0.000	16.48	0.05	0.000	2.35	0.04	0.000
27	2.25	0.00	0.910	13.11	0.00	0.060	19.27	0.00	0.000	17.93	0.00	0.000	17.93	0.05	0.000	1.01	0.38	0.000
28	3.14	0.00	0.890	14.77	0.00	0.051	22.56	0.00	0.000	19.82	0.00	0.000	16.27	0.00	0.000	0.00	0.00	0.000
29	3.93	0.00	0.860	14.66	0.00	0.045	21.24	0.00	0.000	20.77	0.00	0.000	16.16	0.00	0.000	3.77	0.00	0.000
30	0.04	0.00	0.820	9.72	0.00	0.039	17.51	0.22	0.000	19.85	0.00	0.000	13.43	0.00	0.000	5.09	0.00	0.000
31				14.06	0.00	0.033				15.07	0.00	0.000	13.11	0.00	0.000			

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RANGQ/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1976 RUN OF MODEL MADE 10/ 6/81

DAILY CLIMATOLOGICAL DATA FOR ZONE 3

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.00	1.000	0.00	0.00	0.990	5.39	0.00	0.495	12.68	0.00	0.039	7.50	0.03	0.000	12.45	0.00	0.000
2	0.00	0.00	1.000	0.00	0.00	0.989	10.77	0.00	0.455	13.07	0.00	0.035	9.48	0.00	0.000	10.97	0.00	0.000
3	3.36	0.08	1.000	0.00	0.03	0.988	10.18	0.00	0.425	13.18	0.00	0.031	10.18	0.20	0.000	7.31	0.00	0.000
4	0.00	0.00	1.000	0.00	0.00	0.984	9.79	0.00	0.390	11.50	0.00	0.029	6.41	0.00	0.000	10.50	0.00	0.000
5	0.00	0.53	1.000	0.50	0.57	0.980	8.89	0.00	0.355	10.81	0.07	0.027	10.57	0.00	0.000	8.31	0.00	0.000
6	0.00	0.00	1.000	5.43	1.69	0.978	9.29	0.12	0.320	7.93	0.11	0.023	7.11	0.00	0.000	11.29	0.39	0.000
7	0.00	0.00	1.000	0.00	0.08	0.972	6.59	0.12	0.280	10.61	0.00	0.020	9.50	0.19	0.000	0.00	0.05	0.000
8	0.00	0.00	1.000	0.00	1.47	0.969	6.89	0.09	0.255	14.48	0.00	0.018	5.32	0.17	0.000	0.22	0.16	0.000
9	0.00	0.00	1.000	0.00	0.00	0.963	7.11	0.00	0.232	11.02	0.00	0.014	11.18	0.09	0.000	0.00	0.25	0.000
10	0.00	0.00	1.000	0.00	0.00	0.960	10.89	0.00	0.215	12.13	0.00	0.012	10.66	0.38	0.000	12.36	0.10	0.000
11	0.00	0.00	1.000	5.38	0.00	0.952	7.11	0.00	0.199	14.20	0.00	0.009	10.07	0.02	0.000	4.50	0.05	0.000
12	0.00	0.51	1.000	0.00	0.00	0.945	7.16	0.00	0.180	12.52	0.17	0.007	10.38	0.11	0.000	0.00	0.00	0.000
13	0.00	0.40	1.000	0.00	0.00	0.938	3.39	0.00	0.170	13.89	0.07	0.003	8.09	0.00	0.000	0.00	0.00	0.000
14	0.00	0.92	1.000	6.91	0.00	0.929	10.36	0.00	0.152	12.50	0.00	0.001	12.38	0.00	0.000	1.04	0.19	0.000
15	0.00	0.56	1.000	10.29	0.00	0.920	4.96	0.00	0.142	13.39	0.00	0.000	8.31	0.00	0.000	8.09	0.00	0.000
16	0.00	0.61	1.000	8.36	0.00	0.910	5.89	0.00	0.133	15.38	0.03	0.000	13.77	0.00	0.000	9.18	0.05	0.000
17	0.00	0.45	1.000	8.86	0.00	0.899	7.39	0.00	0.122	13.29	0.07	0.000	14.47	0.09	0.000	9.88	0.00	0.000
18	0.00	0.35	1.000	12.04	0.11	0.885	10.16	0.00	0.115	13.81	0.00	0.000	13.72	0.11	0.000	8.88	0.00	0.000
19	0.00	0.00	1.000	3.50	0.21	0.870	11.86	0.00	0.105	14.29	0.00	0.000	10.27	0.40	0.000	8.97	0.00	0.000
20	0.00	0.00	1.000	0.00	0.71	0.852	5.82	0.00	0.098	13.18	0.34	0.000	10.81	0.03	0.000	0.50	0.06	0.000
21	0.00	0.00	1.000	2.89	0.09	0.835	4.45	0.03	0.090	13.00	0.00	0.000	14.18	0.00	0.000	2.39	0.28	0.000
22	0.00	0.00	1.000	4.05	0.00	0.815	8.21	0.00	0.083	12.20	0.00	0.000	12.39	0.00	0.000	0.00	0.00	0.000
23	0.00	0.00	1.000	1.68	0.00	0.790	5.29	0.00	0.078	13.48	0.02	0.000	14.57	0.40	0.000	0.00	0.00	0.000
24	0.00	0.00	1.000	2.29	0.00	0.760	8.95	0.00	0.070	12.07	0.00	0.000	8.11	0.12	0.000	0.00	0.90	0.000
25	0.00	0.00	1.000	7.27	0.00	0.729	3.31	0.00	0.065	9.41	0.59	0.000	9.89	0.04	0.000	0.00	1.45	0.000
26	0.00	0.00	1.000	5.27	0.00	0.700	10.70	0.00	0.059	13.38	0.08	0.000	9.50	0.25	0.000	0.00	0.10	0.000
27	0.00	0.00	0.998	7.88	0.00	0.685	13.29	0.00	0.054	11.20	0.00	0.000	11.20	0.00	0.000	0.00	0.07	0.000
28	0.00	0.00	0.997	8.79	0.00	0.635	17.57	0.00	0.050	13.59	0.00	0.000	10.29	0.17	0.000	0.00	0.00	0.000
29	0.00	0.00	0.996	9.18	0.00	0.600	17.75	0.05	0.045	14.79	0.00	0.000	10.68	0.22	0.000	0.00	0.00	0.000
30	0.00	0.00	0.995	3.98	0.00	0.565	14.77	0.73	0.041	11.13	0.00	0.000	6.70	0.00	0.000	0.00	0.00	0.000
31				9.07	0.00	0.525				5.34	0.24	0.000	7.88	0.00	0.000			

ORIGINAL PAGE IS
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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1976 RUN OF MODEL MADE 10/ 6/81

WATERSHED MELT AND RUNOFF COEFFICIENTS

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	1	15	30	1	15	30	1	15	30	1	15	30	1	15	30	1	15	30
DATA FOR ZONE 1:																		
MELT FACTORS	0.050	0.060	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070
RUNOFF COEF.	0.500	0.400	0.350	0.350	0.250	0.250	0.200	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150
PREC. METHOD	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
DATA FOR ZONE 2:																		
MELT FACTORS	0.040	0.040	0.070	0.070	0.070	0.070	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120
RUNOFF COEF.	0.600	0.500	0.450	0.450	0.400	0.400	0.350	0.200	0.200	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150
PREC. METHOD	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
DATA FOR ZONE 3:																		
MELT FACTORS	0.030	0.040	0.080	0.080	0.100	0.100	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160
RUNOFF COEF.	0.700	0.700	0.650	0.650	0.600	0.600	0.550	0.450	0.450	0.400	0.400	0.200	0.200	0.200	0.200	0.200	0.200	0.200
PREC. METHOD	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1

NOTE: PREC. METHOD:
0 = PREC. RUNOFF COMPUTED FOR NON-SNOWCOVERED AREAS ONLY
1 = PREC. RUNOFF COMPUTED FOR ALL AREAS

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RANGO/MARTINEC MODEL VERSION KCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1976 RUN OF MODEL MADE 10/ 6/81

COMPUTED DAILY RUNOFF FOR ZONE 1

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	1066.8	193.0	0.0	0.0	752.7	0.0
2	1694.9	288.2	0.0	72.8	0.0	0.0
3	1818.1	346.5	0.0	0.0	437.1	0.0
4	1380.5	303.2	0.0	0.0	0.0	0.0
5	751.8	649.7	0.0	0.0	0.0	0.0
6	0.0	2905.7	0.0	0.0	0.0	361.4
7	747.8	487.6	0.0	0.0	0.0	218.5
8	1073.3	1508.5	453.2	0.0	0.0	0.0
9	1319.9	84.8	0.0	0.0	194.2	0.0
10	1449.8	75.1	0.0	0.0	72.8	0.0
11	1643.1	0.0	0.0	0.0	60.7	0.0
12	1730.7	0.0	0.0	0.0	0.0	0.0
13	876.8	0.0	0.0	0.0	0.0	0.0
14	1003.5	0.0	0.0	0.0	0.0	0.0
15	221.5	0.0	0.0	0.0	0.0	218.5
16	74.0	0.0	0.0	206.4	0.0	424.9
17	0.0	0.0	0.0	0.0	267.1	0.0
18	0.0	60.7	0.0	0.0	971.2	0.0
19	1043.7	121.4	0.0	48.6	0.0	0.0
20	775.0	384.4	0.0	0.0	0.0	0.0
21	1021.3	445.1	0.0	0.0	0.0	48.6
22	568.7	60.7	85.0	157.8	0.0	121.4
23	584.8	0.0	36.4	0.0	0.0	0.0
24	459.2	0.0	0.0	0.0	0.0	0.0
25	446.8	0.0	0.0	0.0	0.0	388.5
26	401.2	0.0	0.0	0.0	60.7	48.6
27	461.5	0.0	0.0	0.0	60.7	461.3
28	430.7	0.0	0.0	0.0	0.0	0.0
29	392.8	0.0	0.0	0.0	0.0	0.0
30	242.0	0.0	352.1	0.0	0.0	0.0
31		0.0		0.0	0.0	

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1976 RUN OF MODEL MADE 10/ 6/81

COMPUTED DAILY RUNOFF FOR ZONE 2

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	195.3	0.0	193.0	0.0	1240.3	0.0
2	1459.6	936.6	199.8	120.0	0.0	0.0
3	2301.4	1824.5	175.4	0.0	720.2	0.0
4	979.5	1700.4	132.5	0.0	0.0	0.0
5	0.0	2732.2	94.8	0.0	0.0	0.0
6	0.0	5652.7	77.0	0.0	0.0	60.0
7	0.0	689.1	28.7	0.0	0.0	360.1
8	784.2	167.6	1307.0	0.0	0.0	0.0
9	1155.5	1772.9	0.0	0.0	320.1	0.0
10	1222.7	2470.3	0.0	0.0	120.0	0.0
11	1722.1	2689.3	0.0	0.0	100.0	0.0
12	1206.7	402.3	0.0	0.0	0.0	0.0
13	0.0	530.5	0.0	0.0	0.0	0.0
14	0.0	1556.1	0.0	0.0	0.0	0.0
15	0.0	1585.8	0.0	0.0	0.0	360.1
16	0.0	1263.0	0.0	340.1	0.0	700.2
17	0.0	1203.1	0.0	0.0	440.1	0.0
18	0.0	1509.1	0.0	0.0	1600.4	0.0
19	0.0	1365.9	0.0	80.0	0.0	0.0
20	0.0	2529.9	0.0	0.0	0.0	0.0
21	0.0	1056.8	0.0	0.0	0.0	80.0
22	579.7	458.9	186.7	260.1	0.0	200.1
23	635.8	336.9	80.0	0.0	0.0	0.0
24	53.7	317.5	0.0	0.0	0.0	0.0
25	241.5	432.5	0.0	0.0	0.0	640.2
26	531.5	331.6	0.0	0.0	100.0	80.0
27	819.2	377.7	0.0	0.0	100.0	0.0
28	1118.1	361.7	0.0	0.0	0.0	0.0
29	1352.3	316.7	0.0	0.0	0.0	760.2
30	13.1	182.0	773.5	0.0	0.0	0.0
31		222.8		0.0	0.0	

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1976 RUN OF MODEL MADE 10/ 6/81

COMPUTED DAILY RUNOFF FOR ZONE 3

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	0.0	3301.8	445.1	84.4	0.0
2	0.0	0.0	6064.4	411.7	0.0	0.0
3	992.3	0.0	5354.2	367.7	562.5	0.0
4	0.0	0.0	4725.0	300.2	0.0	0.0
5	0.0	358.3	3905.6	656.5	0.0	0.0
6	0.0	4223.3	4573.1	782.9	0.0	1096.9
7	0.0	0.0	2951.8	191.0	534.4	0.0
8	0.0	0.0	2692.9	234.6	478.1	0.0
9	0.0	0.0	2041.3	138.9	253.1	0.0
10	0.0	0.0	2897.5	131.0	1068.8	1575.0
11	0.0	3745.4	1751.0	115.0	56.3	140.6
12	0.0	0.0	1594.9	1035.2	450.0	0.0
13	0.0	0.0	713.2	431.3	0.0	0.0
14	0.0	4694.3	1948.8	11.3	0.0	0.0
15	0.0	6922.8	818.9	0.0	0.0	534.4
16	0.0	6419.1	793.2	84.4	0.0	140.6
17	0.0	6720.8	912.9	196.9	253.1	0.0
18	0.0	9097.5	1183.0	0.0	309.4	0.0
19	0.0	2799.6	1260.9	0.0	1125.0	0.0
20	0.0	0.0	577.5	956.3	84.4	0.0
21	0.0	2563.8	595.4	0.0	0.0	956.3
22	0.0	3417.3	723.6	0.0	0.0	0.0
23	0.0	1148.2	417.8	56.3	1125.0	0.0
24	0.0	1468.5	5701.6	0.0	337.5	0.0
25	0.0	4471.9	217.8	1659.4	112.5	0.0
26	0.0	3112.7	639.2	225.0	703.1	0.0
27	0.0	4421.5	726.7	0.0	0.0	0.0
28	0.0	4709.6	889.5	0.0	478.1	0.0
29	0.0	4647.5	1125.2	0.0	618.8	0.0
30	0.0	1897.4	5232.8	0.0	0.0	0.0
31		4017.8		675.0	0.0	

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1976 RUN OF MODEL MADE 10/ 6/81

DAY	STREAMFLOW FOR APRIL			STREAMFLOW FOR MAY			STREAMFLOW FOR JUNE			STREAMFLOW FOR JULY			STREAMFLOW FOR AUGUST			STREAMFLOW FOR SEPTEMBER		
	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS
1	352.	330.	1001.	961.	3946.	4354.	1786.	1953.	479.	553.	456.	431.						
2	435.	491.	963.	1200.	3938.	4395.	1679.	1577.	563.	687.	429.	413.						
3	629.	554.	998.	1468.	4145.	4097.	1591.	1417.	537.	594.	404.	413.						
4	857.	662.	1078.	1460.	4266.	4493.	1494.	1280.	600.	621.	381.	383.						
5	924.	631.	1175.	1560.	4310.	4774.	1403.	1131.	562.	545.	360.	371.						
6	895.	558.	1523.	1758.	4287.	4743.	1346.	1120.	528.	452.	346.	419.						
7	850.	510.	2188.	1963.	4301.	4442.	1299.	1015.	498.	420.	389.	481.						
8	867.	552.	2112.	1227.	4190.	4507.	1216.	941.	500.	465.	397.	468.						
9	949.	624.	2079.	1497.	4189.	4581.	1142.	929.	500.	516.	375.	413.						
10	1061.	746.	2072.	1177.	3994.	4512.	1068.	842.	519.	620.	362.	413.						
11	1194.	879.	2180.	1370.	3879.	3942.	1000.	806.	558.	599.	421.	407.						
12	1345.	965.	2429.	1589.	3678.	3332.	942.	762.	539.	600.	404.	407.						
13	1416.	854.	2257.	1598.	3476.	3086.	945.	849.	531.	537.	381.	401.						
14	1377.	753.	2210.	1860.	3234.	2937.	906.	1056.	498.	500.	360.	389.						
15	1330.	664.	2588.	2592.	3107.	2533.	844.	692.	468.	445.	346.	389.						
16	1242.	593.	3086.	3596.	2901.	2434.	790.	668.	441.	396.	388.	383.						
17	1153.	555.	3502.	3840.	2715.	2303.	776.	684.	420.	400.	431.	359.						
18	1068.	484.	3954.	4395.	2559.	2015.	736.	665.	461.	375.	406.	371.						
19	1013.	455.	4467.	4056.	2440.	2028.	688.	622.	594.	454.	383.	371.						
20	1009.	441.	4424.	3825.	2333.	2170.	656.	648.	621.	659.	362.	371.						
21	990.	466.	4299.	3601.	2183.	2390.	670.	661.	587.	814.	347.	425.						
22	1002.	511.	4273.	3458.	2053.	2432.	629.	557.	550.	678.	383.	341.						
23	1014.	565.	4199.	3103.	1961.	2539.	614.	514.	522.	605.	378.	280.						
24	1014.	626.	3946.	3342.	1844.	2094.	578.	543.	555.	675.	357.	302.						
25	981.	700.	3794.	3399.	1737.	1683.	551.	544.	540.	615.	343.	324.						
26	965.	799.	3873.	2861.	1618.	1571.	611.	571.	518.	561.	375.	455.						
27	970.	861.	3852.	3144.	1541.	1516.	586.	619.	535.	508.	363.	507.						
28	997.	932.	3943.	3992.	1478.	1444.	549.	534.	514.	490.	367.	474.						
29	1040.	1103.	4045.	4326.	1434.	1396.	515.	474.	512.	490.	350.	437.						
30	1061.	1064.	4089.	4574.	1448.	1343.	484.	457.	516.	483.	369.	413.						
31			3928.	3416.			459.	460.	484.	463.								

---RANGO/HARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

SUMMARY OF THE MODEL RUN FOR THE YEAR OF 1976 RUN OF MODEL MADE 10/ 6/81

NASH-SUTCLIFFE GOODNESS OF FIT METHOD - NSR**2 = 0.9320

ACTUAL SEASON VOLUME = 246646.000 CFS-DAYS

COMPUTED SEASON VOLUME = 265938.406 CFS-DAYS

SEASONAL DIFFERENCE IN PERCENT = 7.25

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1977 RUN OF MODEL MADE 10/ 6/81

DAILY CLIMATOLOGICAL DATA FOR ZONE 1

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.38	0.107	15.43	0.00	0.000	25.12	0.00	0.000	27.06	0.03	0.000	27.50	0.00	0.000	27.62	0.00	0.000
2	0.00	0.14	0.099	14.68	0.00	0.000	23.43	0.00	0.000	28.68	0.00	0.000	29.37	0.00	0.000	26.74	0.00	0.000
3	0.00	0.03	0.090	11.68	0.00	0.000	23.49	0.00	0.000	27.81	0.00	0.000	28.37	0.00	0.000	23.87	0.10	0.000
4	0.00	0.00	0.080	11.68	0.00	0.000	24.50	0.00	0.000	28.24	0.24	0.000	28.68	0.00	0.000	23.93	0.03	0.000
5	2.43	0.00	0.071	12.37	0.00	0.000	25.74	0.00	0.000	24.31	0.05	0.000	30.06	0.19	0.000	24.06	0.00	0.000
6	5.55	0.00	0.064	17.37	0.00	0.000	25.31	0.00	0.000	26.62	0.22	0.000	30.43	0.00	0.000	27.12	0.00	0.000
7	11.37	0.00	0.058	17.99	0.00	0.000	25.49	0.00	0.000	25.31	0.00	0.000	31.31	0.00	0.000	27.37	0.00	0.000
8	14.99	0.00	0.050	18.62	0.00	0.000	22.37	0.00	0.000	25.74	0.00	0.000	32.31	0.00	0.000	28.81	0.00	0.000
9	14.87	0.00	0.045	19.05	0.00	0.000	24.93	0.35	0.000	26.12	0.00	0.000	29.93	0.03	0.000	25.31	0.00	0.000
10	15.24	0.00	0.039	18.74	0.00	0.000	21.31	0.00	0.000	26.43	0.00	0.000	27.06	0.00	0.000	26.06	0.09	0.000
11	10.80	0.01	0.032	10.87	0.00	0.000	22.93	0.00	0.000	27.24	0.00	0.000	25.62	0.00	0.000	22.31	0.05	0.000
12	6.30	0.00	0.028	12.49	0.20	0.000	23.06	0.00	0.000	26.56	0.00	0.000	28.12	0.00	0.000	19.56	0.10	0.000
13	8.37	0.00	0.021	10.11	0.69	0.000	25.62	0.00	0.000	31.55	0.26	0.000	28.56	0.00	0.000	14.81	0.04	0.000
14	9.43	0.00	0.018	9.00	0.19	0.000	25.06	0.00	0.000	25.50	0.00	0.000	26.24	0.00	0.000	16.81	0.18	0.000
15	8.31	0.00	0.012	10.62	0.15	0.000	26.37	0.00	0.000	27.87	0.00	0.000	26.18	0.30	0.000	19.31	0.00	0.000
16	8.62	0.01	0.009	11.49	0.05	0.000	26.68	0.00	0.000	28.12	0.00	0.000	27.62	0.00	0.000	17.62	0.00	0.000
17	13.12	0.00	0.005	15.55	0.00	0.000	30.55	0.00	0.000	31.49	0.00	0.000	26.81	0.25	0.000	18.81	0.00	0.000
18	14.74	0.00	0.000	11.32	0.00	0.000	25.62	0.00	0.000	29.18	0.14	0.000	27.56	0.36	0.000	16.06	0.00	0.000
19	12.06	0.27	0.000	4.37	0.00	0.000	23.05	0.00	0.000	31.31	0.00	0.000	24.12	0.05	0.000	17.99	0.00	0.000
20	3.74	0.26	0.000	10.06	0.03	0.000	24.37	0.00	0.000	27.37	0.00	0.000	24.74	0.50	0.000	21.74	0.00	0.000
21	6.99	0.00	0.000	10.93	0.00	0.000	22.37	0.00	0.000	25.50	0.33	0.000	24.50	0.00	0.000	18.81	0.00	0.000
22	10.18	0.00	0.000	13.31	0.00	0.000	23.74	0.00	0.000	25.87	0.05	0.000	26.56	0.00	0.000	20.88	0.00	0.000
23	13.87	0.00	0.000	17.05	0.00	0.000	23.37	0.05	0.000	25.99	0.04	0.000	27.12	0.13	0.000	20.94	0.16	0.000
24	12.06	0.01	0.000	15.24	0.00	0.000	22.68	0.00	0.000	25.37	0.22	0.000	28.24	0.00	0.000	17.56	0.00	0.000
25	10.37	0.01	0.000	15.68	0.03	0.000	23.18	0.00	0.000	26.56	0.00	0.000	27.93	0.00	0.000	20.62	0.00	0.000
26	11.74	0.00	0.000	14.18	0.02	0.000	26.24	0.00	0.000	27.12	0.03	0.000	26.18	0.00	0.000	21.37	0.00	0.000
27	14.74	0.00	0.000	14.18	0.00	0.000	26.81	0.00	0.000	26.24	0.00	0.000	28.99	0.00	0.000	19.74	0.00	0.000
28	12.37	0.04	0.000	16.18	0.00	0.000	27.18	0.00	0.000	27.06	0.00	0.000	21.37	0.00	0.000	22.24	0.00	0.000
29	13.56	0.00	0.000	19.56	0.00	0.000	26.12	0.28	0.000	26.87	0.00	0.000	24.24	0.00	0.000	20.68	0.00	0.000
30	15.05	0.00	0.000	20.55	0.00	0.000	25.49	0.00	0.000	30.74	0.00	0.000	25.43	0.00	0.000	22.37	0.00	0.000
31				23.56	0.00	0.000				28.99	0.00	0.000	26.49	0.00	0.000			

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1977 RUN OF MODEL MADE 10/ 6/81

DAILY CLIMATOLOGICAL DATA FOR ZONE 2

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.81	0.790	10.51	0.00	0.000	18.38	0.00	0.000	21.61	0.03	0.000	23.35	0.00	0.000	20.88	0.00	0.000
2	0.00	0.32	0.768	6.64	0.00	0.000	16.43	0.00	0.000	22.72	0.00	0.000	23.66	0.00	0.000	19.48	0.00	0.000
3	0.00	0.08	0.745	3.64	0.00	0.000	17.27	0.00	0.000	21.32	0.00	0.000	22.66	0.00	0.000	18.16	0.10	0.000
4	0.00	0.00	0.710	5.72	0.00	0.000	20.35	0.00	0.000	20.98	0.24	0.000	22.72	0.00	0.000	16.93	0.03	0.000
5	0.00	0.00	0.675	6.66	0.00	0.000	18.48	0.00	0.000	19.90	0.05	0.000	28.69	0.19	0.000	18.61	0.00	0.000
6	0.00	0.00	0.640	11.66	0.00	0.000	18.82	0.00	0.000	21.95	0.22	0.000	23.51	0.00	0.000	22.45	0.00	0.000
7	5.66	0.00	0.595	11.77	0.00	0.000	19.27	0.00	0.000	19.32	0.00	0.000	24.82	0.00	0.000	21.66	0.00	0.000
8	8.77	0.00	0.540	11.68	0.00	0.000	14.59	0.00	0.000	20.56	0.00	0.000	27.90	0.00	0.000	22.32	0.00	0.000
9	9.16	0.00	0.500	11.54	0.00	0.000	20.01	0.35	0.000	21.45	0.00	0.000	22.93	0.03	0.000	20.90	0.00	0.000
10	10.06	0.36	0.450	11.48	0.00	0.000	14.82	0.00	0.000	19.43	0.00	0.000	21.61	0.00	0.000	22.69	0.09	0.000
11	2.25	0.03	0.410	3.09	0.00	0.000	18.01	0.00	0.000	22.06	0.00	0.000	20.95	0.00	0.000	22.05	0.03	0.000
12	0.00	0.00	0.370	4.19	0.28	0.000	17.61	0.00	0.000	21.11	0.00	0.000	23.45	0.00	0.000	14.11	0.10	0.000
13	0.59	0.00	0.330	1.30	1.36	0.000	18.88	0.00	0.000	24.04	0.26	0.000	23.11	0.00	0.000	10.40	0.04	0.000
14	4.51	0.00	0.290	4.85	0.45	0.000	19.61	0.00	0.000	21.35	0.00	0.000	18.98	0.00	0.000	12.40	0.18	0.000
15	3.90	0.00	0.250	3.88	0.36	0.000	20.66	0.00	0.000	22.16	0.00	0.000	22.29	0.30	0.000	12.82	0.00	0.000
16	1.88	0.00	0.215	5.27	0.11	0.000	20.72	0.00	0.000	23.45	0.00	0.000	20.88	0.00	0.000	15.03	0.00	0.000
17	8.45	0.00	0.180	8.04	0.00	0.000	23.04	0.00	0.000	25.27	0.00	0.000	22.40	0.25	0.000	16.48	0.00	0.000
18	9.56	0.00	0.145	3.59	0.00	0.000	18.88	0.00	0.000	23.22	0.14	0.000	22.11	0.36	0.000	10.61	0.00	0.000
19	6.61	0.65	0.115	0.00	0.00	0.000	15.54	0.00	0.000	24.82	0.00	0.000	19.45	0.03	0.000	11.77	0.00	0.000
20	0.00	0.38	0.095	6.69	0.07	0.000	18.66	0.00	0.000	19.59	0.00	0.000	19.56	0.50	0.000	16.56	0.00	0.000
21	0.00	0.00	0.080	3.93	0.00	0.000	16.66	0.00	0.000	21.35	0.33	0.000	20.35	0.00	0.000	14.40	0.00	0.000
22	2.14	0.00	0.065	8.90	0.00	0.000	16.48	0.00	0.000	20.16	0.03	0.000	21.11	0.00	0.000	21.39	0.00	0.000
23	8.16	0.00	0.055	9.54	0.00	0.000	15.59	0.03	0.000	19.77	0.04	0.000	22.45	0.13	0.000	20.16	0.16	0.000
24	6.61	0.03	0.042	5.91	0.00	0.000	18.79	0.00	0.000	19.66	0.22	0.000	23.06	0.00	0.000	16.26	0.00	0.000
25	6.74	0.00	0.032	9.72	0.07	0.000	17.22	0.00	0.000	21.11	0.00	0.000	23.01	0.00	0.000	15.95	0.00	0.000
26	4.48	0.00	0.025	8.22	0.04	0.000	21.06	0.00	0.000	22.45	0.03	0.000	20.22	0.00	0.000	19.82	0.00	0.000
27	9.56	0.00	0.019	8.22	0.00	0.000	20.32	0.00	0.000	21.06	0.00	0.000	22.77	0.00	0.000	14.56	0.00	0.000
28	8.74	0.01	0.011	10.22	0.00	0.000	19.14	0.00	0.000	21.61	0.00	0.000	17.74	0.00	0.000	14.98	0.00	0.000
29	8.11	0.00	0.004	14.11	0.00	0.000	21.45	0.28	0.000	21.16	0.00	0.000	19.06	0.00	0.000	12.64	0.00	0.000
30	7.54	0.00	0.000	10.96	0.00	0.000	19.27	0.00	0.000	25.56	0.00	0.000	20.51	0.00	0.000	16.66	0.00	0.000
31				18.11	0.00	0.000				22.77	0.00	0.000	20.27	0.00	0.000			

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RANQ/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN 3 FOR THE YEAR OF 1977 RUN OF MODEL MADE 10/ 6/81

DAILY CLIMATOLOGICAL DATA FOR ZONE 3

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	1.23	0.970	5.77	0.00	0.302	11.89	0.00	0.090	16.38	0.00	0.000	19.36	0.00	0.000	14.39	0.00	0.000
2	0.00	0.50	0.962	0.00	0.00	0.284	9.70	0.00	0.083	16.98	0.00	0.000	18.18	0.00	0.000	12.50	0.10	0.000
3	0.00	0.13	0.957	0.00	0.00	0.261	11.29	0.16	0.079	15.92	0.00	0.000	17.18	0.00	0.000	12.68	0.20	0.000
4	0.00	0.00	0.949	0.00	0.00	0.245	16.36	0.00	0.070	14.00	0.49	0.000	16.98	0.00	0.000	10.20	0.00	0.000
5	0.00	0.00	0.942	1.18	0.00	0.228	11.50	0.00	0.064	15.66	0.41	0.000	23.45	0.09	0.000	13.38	0.00	0.000
6	0.00	0.00	0.932	6.18	0.00	0.213	12.59	0.04	0.059	17.47	0.02	0.000	20.77	0.00	0.000	17.97	0.23	0.000
7	0.18	0.00	0.922	5.79	0.00	0.200	13.29	0.16	0.052	13.09	0.00	0.000	18.59	0.00	0.000	16.18	0.00	0.000
8	2.79	0.00	0.912	5.39	0.00	0.185	7.11	0.00	0.048	15.57	0.00	0.000	23.66	0.00	0.000	16.09	0.00	0.000
9	3.68	0.00	0.900	4.31	0.00	0.170	15.27	0.18	0.040	16.97	0.00	0.000	16.20	0.00	0.000	16.66	0.00	0.000
10	4.88	0.45	0.890	4.50	0.00	0.160	8.59	0.00	0.035	12.70	0.00	0.000	16.38	0.02	0.000	19.45	0.00	0.000
11	0.00	0.04	0.875	0.00	0.00	0.149	13.27	0.00	0.030	17.07	0.00	0.000	16.47	0.03	0.000	20.43	1.30	0.000
12	0.00	0.00	0.856	0.00	0.36	0.135	12.38	0.00	0.025	15.88	0.04	0.000	18.97	0.04	0.000	8.88	0.00	0.000
13	0.00	0.00	0.835	0.00	2.01	0.123	12.39	0.00	0.020	16.81	0.10	0.000	17.88	0.03	0.000	6.16	0.67	0.000
14	0.00	0.00	0.810	0.86	0.70	0.117	14.38	0.00	0.013	17.36	0.18	0.000	12.00	0.00	0.000	8.16	0.00	0.000
15	0.00	0.00	0.790	0.00	0.56	0.230	15.18	0.00	0.010	16.68	0.15	0.000	18.55	1.85	0.000	6.59	0.00	0.000
16	0.00	0.00	0.763	0.00	0.17	0.220	14.98	0.00	0.008	18.97	0.10	0.000	14.39	0.02	0.000	12.54	0.00	0.000
17	3.97	0.00	0.735	0.81	0.00	0.211	15.81	0.00	0.001	19.29	0.06	0.000	18.16	0.28	0.000	13.84	0.00	0.000
18	4.57	0.00	0.710	0.00	0.00	0.201	12.39	0.00	0.000	17.48	0.00	0.000	16.88	2.90	0.000	5.38	0.00	0.000
19	1.38	1.02	0.679	0.00	0.00	0.191	8.31	0.00	0.000	18.59	0.02	0.000	14.97	0.02	0.000	5.79	0.00	0.000
20	0.00	0.49	0.640	3.45	0.11	0.181	13.18	0.00	0.000	12.11	0.43	0.000	14.57	0.57	0.000	11.57	0.00	0.000
21	0.00	0.00	0.607	0.00	0.00	0.172	11.18	0.00	0.000	17.36	0.32	0.000	16.36	0.60	0.000	10.16	0.00	0.000
22	0.00	0.00	0.567	4.66	0.00	0.168	9.50	0.00	0.000	14.68	0.28	0.000	15.88	0.43	0.000	20.91	0.17	0.000
23	2.68	0.00	0.520	2.31	0.00	0.159	8.11	0.39	0.000	13.79	0.01	0.000	17.97	0.01	0.000	19.02	0.00	0.000
24	1.38	0.04	0.480	0.00	0.00	0.150	15.05	0.04	0.000	14.18	0.05	0.000	18.07	0.05	0.000	14.43	0.00	0.000
25	3.25	0.00	0.450	3.98	0.11	0.141	11.48	0.04	0.000	15.88	1.22	0.000	18.27	0.14	0.000	11.47	0.00	0.000
26	0.00	0.00	0.420	2.48	0.06	0.132	16.07	0.10	0.000	17.97	0.60	0.000	14.48	0.00	0.000	16.95	0.00	0.000
27	4.57	0.00	0.395	2.48	0.00	0.128	14.09	0.00	0.000	16.07	0.05	0.000	16.79	0.00	0.000	9.57	0.00	0.000
28	5.25	0.00	0.368	4.48	0.00	0.120	11.41	0.00	0.000	16.38	0.14	0.000	14.25	0.00	0.000	8.00	0.00	0.000
29	2.88	0.00	0.345	8.88	0.00	0.111	16.97	0.00	0.000	15.68	0.00	0.000	14.07	0.00	0.000	4.91	0.00	0.000
30	0.31	0.00	0.320	1.74	0.00	0.104	13.29	0.22	0.000	20.57	0.00	0.000	15.77	0.00	0.000	11.18	0.00	0.000
31				12.88	0.00	0.098				16.79	0.00	0.000	14.29	0.00	0.000			

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KANGO/MARTINEC MODEL VERSION KCI-1.3 KUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1977 RUN OF MODEL MADE 10/ 6/81

WATERSHED MELT AND RUNOFF COEFFICIENTS

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	1	15	30	1	15	31	1	15	31	1	15	31	1	15	31	1	15	30
DATA FOR ZONE 1:																		
MELT FACTORS	0.050	0.050	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070
RUNOFF COEF.	0.300	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100
PREC. METHOD	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
DATA FOR ZONE 2:																		
MELT FACTORS	0.040	0.060	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120
RUNOFF COEF.	0.400	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100
PREC. METHOD	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
DATA FOR ZONE 3:																		
MELT FACTORS	0.030	0.050	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160
RUNOFF COEF.	0.700	0.700	0.400	0.400	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150
PREC. METHOD	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE: PREC. METHOD:

0 - PREC. RUNOFF COMPUTED FOR NON-SNOWCOVERED AREAS ONLY

1 - PREC. RUNOFF COMPUTED FOR ALL AREAS

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1977 RUN OF MODEL MADE 10/ 6/81

COMPUTED DAILY RUNOFF FOR ZONE 1

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	0.0	0.0	24.3	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	80.9
4	0.0	0.0	0.0	194.2	0.0	24.3
5	295.0	0.0	0.0	40.5	153.8	0.0
6	623.8	0.0	0.0	178.1	0.0	0.0
7	425.4	0.0	0.0	0.0	0.0	0.0
8	91.0	0.0	0.0	0.0	0.0	0.0
9	81.2	0.0	283.3	0.0	24.3	0.0
10	727.7	0.0	0.0	0.0	0.0	0.0
11	66.2	0.0	0.0	0.0	0.0	72.8
12	21.4	161.9	0.0	0.0	0.0	40.5
13	21.3	558.5	0.0	0.0	0.0	80.9
14	20.6	153.8	0.0	210.4	0.0	32.4
15	12.1	121.4	0.0	0.0	0.0	145.7
16	11.2	40.5	0.0	0.0	242.8	0.0
17	2.7	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	113.3	202.3	0.0
19	218.5	0.0	0.0	0.0	291.4	0.0
20	210.4	24.3	0.0	0.0	40.5	0.0
21	0.0	0.0	0.0	0.0	404.7	0.0
22	0.0	0.0	0.0	267.1	0.0	0.0
23	0.0	0.0	43.5	40.5	0.0	0.0
24	8.1	0.0	0.0	32.4	105.2	129.5
25	8.1	24.3	0.0	178.1	0.0	0.0
26	0.0	16.2	0.0	24.3	0.0	0.0
27	0.0	0.0	0.0	0.0	0.0	0.0
28	32.4	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	226.6	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	0.0

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ORIGINAL PAGE 13
OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1977 RUN OF MODEL MADE 10/ 6/81

COMPUTED DAILY RUNOFF FOR ZONE 2

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	0.0	0.0	40.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	0.0	0.0	0.0	0.0	133.4
4	0.0	0.0	0.0	320.1	0.0	40.0
5	0.0	0.0	0.0	66.7	253.4	0.0
6	0.0	0.0	0.0	293.4	0.0	0.0
7	1207.8	0.0	0.0	0.0	0.0	0.0
8	1871.4	0.0	0.0	0.0	0.0	0.0
9	1954.7	0.0	466.8	0.0	40.0	0.0
10	2803.9	0.0	0.0	0.0	0.0	120.0
11	291.3	0.0	0.0	0.0	0.0	66.7
12	0.0	373.4	0.0	0.0	0.0	133.4
13	41.5	0.0	0.0	346.8	0.0	53.3
14	279.1	1373.4	0.0	0.0	0.0	240.1
15	208.1	1101.1	0.0	0.0	400.1	0.0
16	32.3	563.4	0.0	0.0	0.0	0.0
17	121.7	0.0	0.0	0.0	333.4	0.0
18	110.9	0.0	0.0	186.7	480.1	0.0
19	927.7	0.0	0.0	0.0	66.7	0.0
20	0.0	93.4	0.0	0.0	666.8	0.0
21	0.0	0.0	0.0	440.1	0.0	0.0
22	171.2	0.0	0.0	66.7	0.0	0.0
23	353.0	0.0	66.7	53.3	173.4	213.4
24	62.2	0.0	0.0	293.4	0.0	0.0
25	17.3	93.4	0.0	0.0	0.0	0.0
26	9.0	53.3	0.0	40.0	0.0	0.0
27	14.5	0.0	0.0	0.0	0.0	0.0
28	21.0	0.0	0.0	0.0	0.0	0.0
29	2.6	0.0	373.4	0.0	0.0	0.0
30	0.0	0.0	0.0	0.0	0.0	0.0
31		0.0	0.0	0.0	0.0	0.0

RANGO MARTINEC MODEL VERSION RC1-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.
 THE RUN IS FOR THE YEAR OF 1977 RUN OF MODEL MADE 10/ 6/81

COMPUTED DAILY RUNOFF FOR ZONE 3

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	3935.9	361.2	0.0	0.0	0.0
2	0.0	0.0	271.7	0.0	0.0	210.9
3	0.0	0.0	638.5	0.0	0.0	421.9
4	0.0	0.0	386.5	1033.6	0.0	0.0
5	0.0	242.1	240.4	864.9	189.8	0.0
6	0.0	1164.7	335.1	42.2	0.0	485.2
7	49.0	1042.2	570.8	0.0	0.0	0.0
8	751.4	897.5	115.2	0.0	0.0	0.0
9	978.1	459.4	585.8	0.0	0.0	0.0
10	1769.9	648.0	101.5	0.0	42.2	0.0
11	0.0	0.0	134.4	0.0	63.3	2742.3
12	0.0	0.0	104.5	84.4	84.4	0.0
13	0.0	0.0	83.6	210.9	63.3	1413.3
14	0.0	90.6	63.1	379.7	0.0	0.0
15	0.0	0.0	51.2	316.4	3902.5	0.0
16	0.0	0.0	40.4	210.9	42.2	0.0
17	1540.6	273.4	5.3	126.6	590.6	0.0
18	1597.0	0.0	0.0	0.0	1898.5	0.0
19	461.2	0.0	0.0	42.2	42.2	0.0
20	0.0	1396.4	0.0	907.1	1202.4	0.0
21	0.0	0.0	0.0	675.0	0.0	0.0
22	0.0	1572.8	0.0	590.6	907.1	358.6
23	1319.1	779.6	822.7	21.1	21.1	0.0
24	326.0	0.0	84.4	105.5	105.5	0.0
25	1599.7	1575.3	84.4	2573.5	295.3	0.0
26	0.0	963.6	210.9	1265.7	0.0	0.0
27	2249.4	837.0	0.0	105.5	0.0	0.0
28	2584.1	1244.7	0.0	295.3	0.0	0.0
29	1417.5	332.7	0.0	0.0	0.0	0.0
30	152.6	62.3	464.1	0.0	0.0	0.0
31		426.0		0.0	0.0	

ORIGINAL PAGE IS
 OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1977 RUN OF MODEL MADE 10/ 6/81

DAY	STREAMFLOW FOR APRIL			STREAMFLOW FOR MAY			STREAMFLOW FOR JUNE			STREAMFLOW FOR JULY			STREAMFLOW FOR AUGUST			STREAMFLOW FOR SEPTEMBER		
	COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS	
1	160.	160.		933.	1058.		715.	989.		299.	259.		421.	281.		392.	219.	
2	153.	173.		1112.	758.		691.	1147.		287.	250.		397.	250.		372.	216.	
3	147.	163.		1030.	954.		666.	1091.		272.	242.		374.	227.		374.	258.	
4	141.	159.		956.	861.		663.	1098.		265.	231.		354.	198.		377.	309.	
5	139.	167.		890.	776.		644.	1098.		326.	259.		337.	201.		359.	319.	
6	148.	188.		853.	1046.		619.	1050.		358.	290.		348.	201.		342.	271.	
7	179.	213.		874.	1130.		603.	696.		364.	264.		330.	182.		347.	245.	
8	253.	257.		885.	1157.		598.	914.		344.	246.		312.	172.		320.	234.	
9	375.	355.		884.	1205.		575.	914.		326.	223.		296.	188.		311.	226.	
10	547.	497.		868.	1356.		615.	883.		308.	198.		284.	192.		296.	215.	
11	772.	601.		848.	695.		583.	733.		292.	178.		272.	188.		303.	204.	
12	740.	466.		794.	832.		554.	598.		278.	149.		262.	185.		422.	258.	
13	692.	364.		776.	704.		526.	504.		271.	169.		253.	175.		417.	309.	
14	654.	316.		769.	660.		499.	477.		294.	182.		243.	172.		473.	255.	
15	630.	349.		824.	562.		473.	418.		298.	201.		251.	238.		466.	242.	
16	602.	442.		847.	573.		448.	364.		299.	208.		440.	437.		438.	290.	
17	585.	548.		827.	589.		424.	325.		294.	198.		422.	520.		413.	305.	
18	652.	826.		787.	550.		400.	298.		284.	208.		471.	527.		389.	272.	
19	719.	933.		734.	483.		378.	268.		286.	223.		587.	468.		368.	246.	
20	762.	640.		696.	426.		357.	249.		277.	223.		572.	462.		348.	231.	
21	723.	502.		739.	352.		337.	235.		311.	264.		665.	481.		329.	227.	
22	677.	506.		701.	331.		319.	218.		364.	272.		627.	455.		313.	227.	
23	658.	513.		753.	394.		307.	205.		379.	268.		641.	401.		315.	290.	
24	711.	584.		749.	515.		335.	264.		366.	300.		618.	368.		315.	315.	
25	701.	589.		711.	508.		322.	264.		382.	315.		587.	351.		299.	281.	
26	748.	607.		771.	425.		310.	281.		503.	407.		567.	356.		250.	250.	
27	718.	684.		787.	380.		304.	272.		546.	569.		532.	310.		269.	242.	
28	823.	699.		793.	421.		208.	277.		520.	541.		499.	286.		256.	238.	
29	936.	685.		818.	505.		276.	268.		505.	481.		469.	264.		243.	231.	
30	959.	754.		783.	718.		292.	268.		475.	378.		442.	231.		232.	219.	
31				737.	887.					447.	325.		416.	227.				

ORIGINAL PAGE IS
OF POOR QUALITY

RANGO/MAT-TINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

SUMMARY OF THE MODEL RUN FOR THE YEAR OF 1977 RUN OF MODEL MADE 10/ 6/81

NASH-SUTCLIFFE GOODNESS OF FIT METHOD - NSR**2 = 0.5561

ACTUAL SEASON VOLUME = 77823.000 CFS-DAYS

COMPUTED SEASON VOLUME = 90854.094 CFS-DAYS

SEASONAL DIFFERENCE IN PERCENT = 14.34

ORIGINAL FILED IN
OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1978 RUN OF MODEL MADE 10/ 6/81

DAILY CLIMATOLOGICAL DATA FOR ZONE 1

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	8.49	0.38	0.200	6.00	0.22	0.000	17.81	0.00	0.000	23.12	0.00	0.000	25.37	0.06	0.000	22.00	0.00	0.000
2	3.68	0.09	0.188	0.00	0.64	0.000	16.61	0.00	0.000	25.55	0.00	0.000	27.12	0.04	0.000	24.37	0.00	0.000
3	7.80	0.00	0.171	6.68	0.28	0.000	18.53	0.00	0.000	26.74	0.00	0.000	24.62	0.00	0.000	25.31	0.00	0.000
4	8.80	0.03	0.160	6.12	0.91	0.000	19.43	0.00	0.000	25.31	0.00	0.000	23.87	0.01	0.000	26.87	0.00	0.000
5	7.68	0.00	0.150	0.00	0.41	0.000	17.99	0.00	0.000	23.05	0.00	0.000	23.87	0.00	0.000	27.62	0.00	0.000
6	7.80	0.00	0.140	0.00	0.29	0.000	16.93	0.00	0.000	22.80	0.00	0.000	26.74	0.00	0.000	26.93	0.00	0.000
7	9.99	0.00	0.130	0.00	0.00	0.000	18.81	0.00	0.000	24.24	0.00	0.000	27.06	0.10	0.000	26.56	0.11	0.000
8	9.55	0.11	0.120	6.18	0.00	0.130	19.24	0.00	0.000	27.31	0.00	0.000	24.50	0.00	0.000	20.93	0.00	0.000
9	7.74	0.09	0.110	8.68	0.00	0.110	24.67	0.00	0.000	25.43	0.05	0.000	26.31	0.01	0.000	24.87	0.00	0.000
10	3.63	0.00	0.101	12.77	0.00	0.082	22.80	0.00	0.000	26.93	0.17	0.000	24.81	0.00	0.000	23.68	0.00	0.000
11	10.30	0.00	0.091	12.80	0.00	0.048	22.80	0.00	0.000	25.68	0.05	0.000	26.24	0.00	0.000	25.68	0.00	0.000
12	11.24	0.00	0.082	16.43	0.00	0.055	23.05	0.00	0.000	24.68	0.04	0.000	26.62	0.01	0.000	19.87	0.00	0.000
13	10.05	0.00	0.073	16.68	0.00	0.045	27.62	0.00	0.000	26.62	0.01	0.000	25.93	0.00	0.000	19.25	0.00	0.000
14	7.87	0.00	0.064	19.49	0.00	0.033	26.37	0.00	0.000	32.18	0.00	0.000	26.06	0.00	0.000	19.62	0.00	0.000
15	7.49	0.00	0.060	22.30	0.00	0.028	23.99	0.00	0.000	28.37	0.00	0.000	20.31	0.00	0.000	24.12	0.00	0.000
16	5.49	0.00	0.051	20.30	0.00	0.019	23.24	0.00	0.000	29.68	0.10	0.000	24.56	0.00	0.000	20.50	0.00	0.000
17	2.18	0.00	0.047	17.30	0.00	0.015	24.81	0.00	0.000	23.87	0.02	0.000	27.55	0.00	0.000	18.30	0.13	0.000
18	2.93	0.00	0.040	10.49	0.00	0.010	24.12	0.00	0.000	26.18	0.00	0.000	26.62	0.00	0.000	14.49	0.00	0.000
19	5.12	0.00	0.031	14.93	0.04	0.005	24.81	0.00	0.000	29.24	0.01	0.000	23.74	0.19	0.000	14.61	0.00	0.000
20	7.24	0.00	0.028	15.24	0.19	0.000	25.74	0.00	0.000	27.87	0.27	0.000	25.75	0.00	0.000	7.24	0.00	0.000
21	3.18	0.00	0.020	13.99	0.01	0.000	25.81	0.00	0.000	25.93	0.00	0.000	24.74	0.00	0.000	7.43	0.00	0.000
22	0.24	0.00	0.015	17.43	0.00	0.000	26.31	0.00	0.000	24.62	0.25	0.000	27.24	0.02	0.000	15.93	0.00	0.000
23	7.11	0.00	0.010	18.05	0.00	0.000	27.18	0.00	0.000	27.12	0.00	0.000	26.12	0.00	0.000	19.31	0.00	0.000
24	9.86	0.00	0.005	15.56	0.00	0.000	28.37	0.00	0.000	28.12	0.00	0.000	26.43	0.00	0.000	19.12	0.00	0.000
25	14.12	0.00	0.000	13.93	0.00	0.000	27.31	0.00	0.000	28.68	0.00	0.000	27.18	0.11	0.000	11.18	0.40	0.000
26	11.99	0.00	0.000	18.55	0.00	0.000	24.05	0.00	0.000	27.55	0.00	0.000	23.62	0.00	0.000	19.74	0.00	0.000
27	12.05	0.02	0.000	16.68	0.00	0.000	25.99	0.00	0.000	29.16	0.00	0.000	24.18	0.00	0.000	20.74	0.00	0.000
28	9.56	0.00	0.000	13.62	0.00	0.000	23.99	0.00	0.000	29.24	0.00	0.000	22.24	0.00	0.000	20.62	0.00	0.000
29	11.93	0.00	0.000	14.81	0.00	0.000	20.37	0.50	0.000	29.87	0.20	0.000	20.87	0.02	0.000	22.43	0.00	0.000
30	8.37	0.49	0.000	19.56	0.00	0.000	18.43	0.35	0.000	27.31	0.00	0.000	20.62	0.00	0.000	19.62	0.00	0.000
31				16.68	0.00	0.000				27.93	0.00	0.000	23.93	0.00	0.000			

RANSO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1978 RUN OF MODEL MADE 10/ 6/81

DAILY CLIMATOLOGICAL DATA FOR ZONE 2

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.77	0.812	1.85	0.45	0.445	11.32	0.00	0.032	16.38	0.00	0.000	21.74	0.06	0.000	17.85	0.00	0.000
2	0.00	0.21	0.801	0.00	0.11	0.420	7.80	0.00	0.024	18.04	0.00	0.000	20.38	0.04	0.000	18.66	0.00	0.000
3	0.00	0.00	0.790	2.79	0.54	0.400	11.04	0.00	0.020	19.48	0.00	0.000	19.95	0.00	0.000	18.82	0.00	0.000
4	0.25	0.07	0.782	1.45	1.40	0.375	10.35	0.00	0.010	18.82	0.00	0.000	20.24	0.01	0.000	21.16	0.00	0.000
5	0.00	0.00	0.772	0.00	0.57	0.350	9.69	0.00	0.000	15.54	0.00	0.000	20.24	0.00	0.000	20.88	0.00	0.000
6	0.00	0.00	0.761	0.00	0.47	0.325	12.01	0.00	0.000	14.23	0.00	0.000	21.56	0.00	0.000	19.93	0.00	0.000
7	0.00	0.00	0.750	0.00	0.00	0.300	12.32	0.00	0.000	16.98	0.00	0.000	23.89	0.10	0.000	23.19	0.11	0.000
8	0.00	0.27	0.740	0.22	0.00	0.750	14.06	0.00	0.000	20.82	0.00	0.000	20.35	0.00	0.000	16.01	0.00	0.000
9	0.48	0.06	0.730	2.72	0.00	0.630	17.09	0.00	0.000	16.35	0.05	0.000	23.98	0.01	0.000	19.16	0.00	0.000
10	0.00	0.00	0.720	5.48	0.00	0.550	14.25	0.00	0.000	19.93	0.17	0.000	20.40	0.00	0.000	19.79	0.00	0.000
11	1.75	0.00	0.710	4.25	0.00	0.490	14.25	0.00	0.000	19.72	0.05	0.000	18.98	0.00	0.000	19.72	0.00	0.000
12	1.91	0.00	0.700	7.35	0.00	0.430	13.46	0.00	0.000	18.72	0.04	0.000	21.95	0.01	0.000	16.24	0.00	0.000
13	2.54	0.00	0.690	10.72	0.00	0.390	20.88	0.00	0.000	19.88	0.01	0.000	18.93	0.00	0.000	16.14	0.00	0.000
14	2.16	0.00	0.680	11.19	0.00	0.350	20.66	0.00	0.000	24.14	0.00	0.000	22.69	0.00	0.000	12.88	0.00	0.000
15	1.27	0.00	0.670	13.75	0.00	0.315	15.69	0.00	0.000	22.66	0.20	0.000	15.90	0.00	0.000	17.38	0.00	0.000
16	0.00	0.00	0.659	11.75	0.00	0.287	15.98	0.00	0.000	25.79	0.10	0.000	19.11	0.00	0.000	16.35	0.00	0.000
17	0.00	0.00	0.649	8.75	0.00	0.260	18.32	0.00	0.000	20.24	0.02	0.000	20.04	0.00	0.000	9.75	0.13	0.000
18	0.00	0.00	0.639	2.19	0.00	0.240	19.45	0.00	0.000	20.22	0.00	0.000	19.88	0.00	0.000	6.19	0.00	0.000
19	0.00	0.00	0.625	7.93	0.09	0.220	18.32	0.00	0.000	21.98	0.01	0.000	18.56	0.19	0.000	3.72	0.00	0.000
20	0.00	0.00	0.615	7.98	0.45	0.190	20.56	0.00	0.000	24.24	0.27	0.000	22.64	0.00	0.000	0.00	0.00	0.000
21	0.00	0.00	0.600	7.77	0.00	0.178	19.32	0.00	0.000	23.08	0.00	0.000	19.56	0.00	0.000	0.43	0.00	0.000
22	0.00	0.00	0.595	12.51	0.00	0.160	19.82	0.00	0.000	19.95	0.25	0.000	22.06	0.02	0.000	11.01	0.00	0.000
23	0.00	0.00	0.579	10.54	0.00	0.145	19.14	0.00	0.000	24.53	0.00	0.000	21.45	0.00	0.000	14.90	0.00	0.000
24	0.00	0.00	0.561	10.11	0.00	0.129	20.59	0.00	0.000	23.45	0.00	0.000	21.51	0.00	0.000	12.38	0.00	0.000
25	7.38	0.00	0.548	6.93	0.00	0.115	20.82	0.00	0.000	20.64	0.00	0.000	23.29	0.11	0.000	1.07	0.40	0.000
26	3.69	0.04	0.534	11.04	0.00	0.100	16.54	0.00	0.000	17.96	0.00	0.000	18.95	0.00	0.000	14.56	0.00	0.000
27	4.54	0.04	0.516	10.72	0.00	0.089	17.69	0.00	0.000	23.22	0.00	0.000	18.22	0.00	0.000	15.56	0.00	0.000
28	4.11	0.00	0.500	6.88	0.00	0.075	15.69	0.00	0.000	24.06	0.00	0.000	14.98	0.00	0.000	13.88	0.00	0.000
29	7.01	0.00	0.480	8.32	0.00	0.065	12.59	0.50	0.000	24.16	0.20	0.000	17.24	0.02	0.000	15.43	0.00	0.000
30	2.66	1.08	0.460	14.11	0.00	0.050	13.51	0.35	0.000	20.82	0.00	0.000	15.95	0.00	0.000	14.95	0.00	0.000
31				8.64	0.00	0.041	23.01	0.00	0.000	23.01	0.00	0.000	19.01	0.00	0.000			

ORIGINAL PAGE NO
OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1978 RUN OF MODEL MADE 10/ 6/81

DAILY CLIMATOLOGICAL DATA FOR ZONE 3

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	1.15	1.000	0.00	0.68	1.000	5.09	0.00	0.475	9.89	0.00	0.062	18.25	0.00	0.000	13.86	0.00	0.000
2	0.00	0.32	1.000	0.00	0.00	0.449	0.00	0.00	0.419	10.81	0.00	0.057	13.89	0.01	0.000	13.18	0.00	0.000
3	0.00	0.00	1.000	0.00	0.80	1.000	3.81	0.00	0.419	12.50	0.00	0.050	15.47	0.00	0.000	12.59	0.00	0.000
4	0.00	0.11	1.000	0.00	1.87	1.000	1.63	0.00	0.390	12.59	0.00	0.042	16.75	0.00	0.000	15.68	0.00	0.000
5	0.00	0.00	1.000	0.00	0.72	1.000	1.72	0.00	0.364	8.31	0.00	0.039	16.75	0.00	0.000	14.39	0.03	0.000
6	0.00	0.00	1.000	0.00	0.63	1.000	7.27	0.00	0.350	6.02	0.00	0.031	16.57	0.00	0.000	13.20	0.00	0.000
7	0.00	0.00	1.000	0.00	0.00	1.000	6.09	0.00	0.325	10.00	0.00	0.028	20.45	0.00	0.000	19.95	0.00	0.000
8	0.00	0.42	1.000	0.00	0.00	1.000	9.07	0.00	0.308	14.59	0.00	0.022	16.36	0.00	0.000	11.27	0.00	0.000
9	0.00	0.05	1.000	0.00	0.00	0.998	9.61	0.00	0.290	7.63	0.00	0.019	21.34	0.03	0.000	13.68	0.00	0.000
10	0.00	0.00	1.000	0.00	0.00	0.990	6.02	0.00	0.273	13.20	0.17	0.012	16.16	0.01	0.000	16.05	0.00	0.000
11	0.00	0.00	1.000	0.00	0.00	0.980	6.02	0.00	0.262	13.98	0.11	0.010	12.00	0.00	0.000	13.98	0.00	0.000
12	0.00	0.00	1.000	0.00	0.00	0.971	4.24	0.00	0.249	12.98	0.11	0.006	17.47	0.00	0.000	12.75	0.00	0.000
13	0.00	0.00	1.000	4.98	0.00	0.961	14.39	0.00	0.234	13.19	0.01	0.002	12.20	0.03	0.000	13.14	0.00	0.000
14	0.00	0.00	1.000	3.22	0.00	0.950	15.18	0.00	0.222	16.41	0.00	0.000	19.45	0.00	0.000	6.39	0.00	0.000
15	0.00	0.00	1.000	5.52	0.00	0.940	7.72	0.00	0.210	17.18	0.00	0.000	11.64	0.00	0.000	10.89	0.00	0.000
16	0.00	0.00	1.000	3.52	0.00	0.929	9.00	0.00	0.200	22.05	0.00	0.000	13.88	0.00	0.000	12.36	0.00	0.000
17	0.00	0.00	1.000	0.52	0.00	0.915	12.09	0.00	0.188	15.77	0.05	0.000	12.81	0.00	0.000	1.52	0.07	0.000
18	0.00	0.00	1.000	0.00	0.00	0.900	14.97	0.00	0.178	14.48	0.10	0.000	13.39	0.00	0.000	0.00	0.32	0.000
19	0.00	0.00	1.000	1.26	0.14	0.888	12.09	0.00	0.162	15.00	0.00	0.000	13.57	0.04	0.000	0.00	1.00	0.000
20	0.00	0.00	1.000	1.00	0.69	0.869	15.57	0.00	0.152	20.75	0.00	0.000	19.64	0.00	0.000	0.00	0.00	0.000
21	0.00	0.00	1.000	1.79	0.70	0.850	13.09	0.00	0.142	20.34	0.00	0.000	14.57	0.00	0.000	0.00	0.00	0.000
22	0.00	0.00	1.000	7.77	0.00	0.830	13.59	0.00	0.132	15.47	0.08	0.000	17.07	0.04	0.000	6.27	0.00	0.000
23	0.00	0.00	1.000	3.31	0.00	0.808	11.41	0.00	0.123	22.04	0.00	0.000	16.97	0.00	0.000	10.66	0.00	0.000
24	0.00	0.00	1.000	4.88	0.00	0.785	13.11	0.00	0.114	18.97	0.00	0.000	16.77	0.00	0.000	5.89	0.00	0.000
25	0.89	0.00	1.000	0.20	0.00	0.758	14.59	0.05	0.108	12.91	0.03	0.000	19.55	0.00	0.000	0.00	1.80	0.000
26	0.00	0.00	1.000	3.81	0.00	0.730	9.31	0.00	0.099	8.74	0.00	0.000	14.47	0.00	0.000	9.57	0.00	0.000
27	0.00	0.06	1.000	4.98	0.00	0.699	9.72	0.00	0.091	17.48	0.01	0.000	12.48	0.00	0.000	10.57	0.00	0.000
28	0.00	0.00	1.000	0.39	0.00	0.660	7.72	0.11	0.082	19.07	0.00	0.000	8.00	0.00	0.000	7.39	0.00	0.000
29	2.27	0.00	1.000	2.09	0.00	0.620	5.11	0.30	0.073	3.68	0.00	0.000	13.75	0.01	0.000	8.70	0.00	0.000
30	0.00	1.64	1.000	8.88	0.00	0.570	8.77	0.00	0.068	14.59	0.00	0.000	11.47	0.00	0.000	10.47	0.00	0.000
31				0.91	0.00	0.510	18.27	0.04	0.000	18.27	0.04	0.000	14.27	0.00	0.000			

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1978 RUN OF MODEL MADE 10/ 6/81

WATERSHED MELT AND RUNOFF COEFFICIENTS

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	1	15	30	1	15	30	1	15	30	1	15	30	1	15	30	1	15	30
DATA FOR ZONE 1:																		
MELT FACTORS	0.050	0.050	0.050	0.050	0.050	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070
RUNOFF COEF.	0.600	0.250	0.250	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
PREC. METHOD	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
DATA FOR ZONE 2:																		
MELT FACTORS	0.030	0.030	0.030	0.040	0.040	0.060	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120	0.120
RUNOFF COEF.	0.250	0.600	0.600	0.500	0.500	0.500	0.500	0.500	0.300	0.200	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150
PREC. METHOD	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
DATA FOR ZONE 3:																		
MELT FACTORS	0.020	0.020	0.020	0.030	0.030	0.050	0.140	0.140	0.140	0.140	0.140	0.140	0.160	0.160	0.160	0.160	0.160	0.160
RUNOFF COEF.	0.750	0.750	0.750	0.750	0.750	0.750	0.900	0.900	0.300	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
PREC. METHOD	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1

NOTE: PREC. METHOD:
0 = PREC. RUNOFF COMPUTED FOR NON-SNOWCOVERED AREA ONLY
1 = PREC. RUNOFF COMPUTED FOR ALL AREAS

ORIGINAL TABLE
OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1978 RUN OF MODEL MADE 10/ 6/81

COMPUTED DAILY RUNOFF FOR ZONE 1

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	2257.6	356.	0.0	0.0	97.1	0.0
2	605.0	0.0	0.0	0.0	64.7	0.0
3	323.9	993.9	0.0	0.0	0.0	0.0
4	487.6	1968.4	0.0	0.0	16.2	0.0
5	279.7	0.0	0.0	0.0	0.0	0.0
6	265.1	0.0	0.0	0.0	0.0	0.0
7	315.3	0.0	0.0	0.0	161.9	178.1
8	812.4	500.2	0.0	0.0	0.0	0.0
9	643.8	640.6	0.0	80.9	16.2	0.0
10	90.2	84.6	0.0	275.2	0.0	0.0
11	227.6	70.4	0.0	80.9	0.0	0.0
12	223.8	73.1	0.0	64.7	16.2	0.0
13	178.1	60.8	0.0	16.2	0.0	0.0
14	122.3	52.1	0.0	0.0	0.0	0.0
15	109.1	50.5	0.0	0.0	0.0	0.0
16	28.3	43.7	0.0	161.9	0.0	0.0
17	10.4	29.4	0.0	32.4	0.0	210.4
18	11.9	11.9	0.0	0.0	0.0	0.0
19	16.1	73.2	0.0	16.2	307.6	0.0
20	20.5	307.6	0.0	437.1	0.0	0.0
21	6.4	16.2	0.0	0.0	0.0	0.0
22	0.4	0.0	0.0	404.7	32.4	0.0
23	7.2	0.0	0.0	0.0	0.0	0.0
24	5.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	178.1	647.5
26	0.0	0.0	0.0	0.0	0.0	0.0
27	40.5	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	0.0	809.4	323.7	32.4	0.0
30	991.5	0.0	565.5	0.0	0.0	0.0
31		0.0		0.0	0.0	

ORIGINAL PAGE IS
OF POOR QUALITY

RANG. ARTINEQ MODEL VERSION KCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1978 RUN OF MODEL MADE 10/ 6/81

COMPUTED DAILY RUNOFF FOR ZONE 2

DAY	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER
	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS
1	0.0	219.6	289.9	0.0	120.0	0.0
2	0.0	0.0	149.8	0.0	80.0	0.0
3	0.0	4345.2	176.7	0.0	0.0	0.0
4	50.6	145.0	82.8	0.0	20.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	200.1	220.1
8	0.0	58.7	0.0	0.0	0.0	0.0
9	91.1	725.5	0.0	133.4	20.0	0.0
10	0.0	1461.7	0.0	453.5	0.0	0.0
11	455.1	1133.6	0.0	133.4	0.0	0.0
12	496.7	1960.5	0.0	106.7	20.0	0.0
13	660.6	2859.4	0.0	26.7	0.0	0.0
14	561.7	2984.8	0.0	0.0	0.0	0.0
15	330.3	3667.6	0.0	0.0	0.0	0.0
16	0.0	4701.3	0.0	200.1	0.0	0.0
17	0.0	1727.4	0.0	40.0	0.0	260.1
18	0.0	210.3	0.0	0.0	0.0	0.0
19	0.0	1298.2	0.0	20.0	380.1	0.0
20	0.0	3607.4	0.0	540.1	0.0	0.0
21	0.0	553.4	0.0	0.0	0.0	0.0
22	0.0	800.9	0.0	500.1	40.0	0.0
23	0.0	611.5	0.0	0.0	0.0	0.0
24	0.0	521.8	0.0	0.0	0.0	0.0
25	1771.7	318.9	0.0	0.0	220.1	0.0
26	885.8	441.7	0.0	0.0	0.0	800.2
27	1244.8	381.7	0.0	0.0	0.0	0.0
28	986.7	206.5	0.0	0.0	0.0	0.0
29	1682.8	216.4	2000.5	400.1	40.0	0.0
30	5305.4	282.3	1400.4	0.0	0.0	0.0
31		141.7		0.0		

ORIGINAL FILED
OF POOR QUALITY

RANSO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1978 RUN OF MODEL MADE 10/ 6/81

COMPUTED DAILY RUNOFF FOR ZONE 3

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	0.0	4352.1	275.9	0.0	0.0
2	0.0	0.0	0.0	277.3	28.1	0.0
3	0.0	0.0	2873.6	281.3	0.0	0.0
4	0.0	0.0	1144.3	238.0	0.0	0.0
5	0.0	0.0	1127.0	145.8	0.0	84.4
6	0.0	0.0	4580.2	84.0	0.0	0.0
7	0.0	0.0	3562.7	126.0	0.0	0.0
8	0.0	0.0	5028.5	144.4	0.0	0.0
9	0.0	0.0	5016.6	121.5	84.4	0.0
10	0.0	0.0	2958.3	549.4	28.1	0.0
11	0.0	0.0	2839.1	372.3	0.0	0.0
12	0.0	0.0	1900.4	1216.3	0.0	0.0
13	0.0	1514.3	6061.2	40.2	84.4	0.0
14	0.0	967.9	6066.1	0.0	0.0	0.0
15	0.0	1641.8	2918.2	0.0	0.0	0.0
16	0.0	1724.5	1215.0	0.0	0.0	0.0
17	0.0	250.9	1534.3	140.6	0.0	0.0
18	0.0	0.0	1798.7	281.3	0.0	0.0
19	0.0	562.0	1322.1	0.0	112.5	0.0
20	0.0	458.3	1597.5	0.0	0.0	0.0
21	0.0	944.0	1254.7	0.0	0.0	0.0
22	0.0	4097.6	1210.9	225.0	112.5	2821.6
23	0.0	1745.6	947.3	0.0	0.0	1087.9
24	0.0	2443.1	1008.8	0.0	0.0	0.0
25	187.7	79.9	1274.6	84.4	0.0	0.0
26	0.0	1466.7	622.2	0.0	0.0	4306.6
27	0.0	1835.7	597.1	28.1	0.0	756.0
28	0.0	135.7	891.4	0.0	0.0	0.0
29	478.8	683.4	1517.5	0.0	28.1	0.0
30	0.0	2669.3	402.6	0.0	0.0	0.0
31		244.7		112.5	0.0	

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1978 RUN OF MODEL MADE 10/ 6/81

DAY	STREAMFLOW FOR APRIL		STREAMFLOW FOR MAY		STREAMFLOW FOR JUNE		STREAMFLOW FOR JULY		STREAMFLOW FOR AUGUST		STREAMFLOW FOR SEPTEMBER	
	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	ACTUAL CFS
1	312.	281.	942.	632.	1945.	3195.	1779.	1614.	445.	351.	156.	182.
2	390.	311.	907.	763.	2115.	3121.	1838.	1325.	432.	378.	149.	198.
3	398.	267.	928.	696.	1993.	3287.	1711.	1203.	416.	336.	143.	198.
4	397.	235.	1186.	721.	2051.	3311.	1596.	1104.	392.	339.	138.	192.
5	401.	241.	1220.	714.	1981.	3125.	1488.	985.	372.	314.	133.	188.
6	394.	182.	1129.	653.	1945.	2866.	1383.	900.	352.	295.	131.	198.
7	387.	262.	1046.	586.	2151.	2822.	1283.	831.	334.	295.	127.	198.
8	390.	303.	981.	548.	2284.	2888.	1196.	758.	334.	295.	136.	201.
9	413.	335.	965.	555.	2516.	3064.	1119.	701.	317.	256.	131.	201.
10	422.	303.	996.	661.	2711.	3708.	1068.	745.	306.	237.	126.	198.
11	411.	280.	1028.	731.	2731.	3938.	1078.	776.	292.	233.	121.	188.
12	427.	320.	1054.	782.	2731.	3778.	1048.	817.	277.	237.	117.	166.
13	446.	390.	1163.	913.	2699.	3679.	1064.	730.	265.	230.	113.	166.
14	466.	440.	1396.	1074.	2993.	3482.	992.	672.	256.	222.	109.	163.
15	475.	353.	1618.	1580.	3236.	4111.	922.	680.	243.	202.	105.	160.
16	467.	422.	1931.	2107.	3190.	3779.	859.	627.	232.	192.	102.	158.
17	441.	416.	2227.	2418.	3015.	3136.	824.	561.	221.	187.	100.	158.
18	416.	373.	2177.	1593.	2885.	2742.	783.	575.	211.	181.	110.	166.
19	393.	353.	2041.	1588.	2784.	2718.	747.	526.	204.	181.	107.	172.
20	372.	358.	2071.	1675.	2657.	2713.	706.	499.	228.	184.	103.	205.
21	352.	387.	2216.	1703.	2561.	2429.	718.	491.	217.	164.	99.	208.
22	334.	395.	2210.	1665.	2447.	2379.	677.	505.	208.	175.	104.	192.
23	316.	395.	2396.	1888.	2339.	2308.	700.	485.	206.	210.	190.	188.
24	300.	405.	2401.	2165.	2220.	2229.	654.	452.	197.	203.	226.	188.
25	309.	492.	2410.	2204.	2120.	2284.	612.	414.	190.	193.	218.	201.
26	381.	554.	2259.	2132.	2044.	2063.	578.	366.	197.	187.	256.	223.
27	414.	687.	2233.	2260.	1925.	1906.	542.	333.	188.	184.	474.	216.
28	460.	655.	2205.	1953.	1819.	1720.	511.	317.	180.	181.	486.	198.
29	506.	663.	2055.	1741.	1770.	1858.	484.	306.	173.	187.	457.	201.
30	663.	644.	1984.	2156.	1961.	1782.	494.	296.	169.	193.	431.	198.
31			2032.	2406.			465.	286.	162.	193.		

ORIGINAL PAGE IS
OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

SUMMARY OF THE MODEL RUN FOR THE YEAR OF 1978 RUN OF MODEL MADE 10/ 6/81

NASH-SUTCLIFFE NOODNESS OF F11 METHOD - NSR**2 = 0.8808

ACTUAL SEASON VOLUME = 175150.000 CFS-DAYS

COMPUTED SEASON VOLUME = 179205.719 CFS-DAYS

SEASONAL DIFFERENCE IN PERCENT = 2.26

RANGO/MARTINEC MODEL VERSION KCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1979 RUN OF MODEL MADE 10/ 6/81

DAILY CLIMATOLOGICAL DATA FOR ZONE 1

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.00	1.000	9.55	0.02	0.715	13.18	0.00	0.000	25.87	0.00	0.000	24.81	0.00	0.000	26.06	0.00	0.000
2	0.00	0.00	1.000	7.92	0.00	0.650	15.74	0.11	0.000	24.93	0.00	0.000	27.56	0.00	0.000	23.62	0.00	0.000
3	0.00	0.00	1.000	5.49	0.00	0.580	18.05	0.00	0.000	25.37	0.00	0.000	26.37	0.00	0.000	25.43	0.00	0.000
4	0.00	0.00	1.000	9.93	0.09	0.510	20.31	0.00	0.000	23.93	0.00	0.000	27.24	0.00	0.000	27.43	0.00	0.000
5	4.81	0.00	0.951	15.30	0.00	0.455	22.49	0.00	0.000	24.81	0.00	0.000	28.62	0.00	0.000	25.87	0.00	0.000
6	10.62	0.00	0.981	18.99	0.00	0.410	23.99	0.00	0.000	25.31	0.10	0.000	29.87	0.00	0.000	27.56	0.00	0.000
7	9.56	0.00	0.972	15.61	1.02	0.370	20.74	0.00	0.000	25.24	0.00	0.000	28.43	0.00	0.000	27.74	0.00	0.000
8	10.12	0.00	0.962	9.49	0.27	0.325	13.80	0.10	0.000	27.81	0.00	0.000	27.61	0.00	0.000	27.37	0.00	0.000
9	5.18	0.17	0.951	0.24	0.24	0.280	8.74	0.00	0.000	27.93	0.00	0.000	25.18	0.08	0.000	25.99	0.00	0.000
10	0.00	0.49	0.940	0.00	0.15	0.240	13.12	0.00	0.000	29.93	0.00	0.000	24.74	0.22	0.000	28.93	0.00	0.000
11	0.00	0.43	0.929	0.00	0.00	0.208	20.93	0.00	0.000	29.68	0.00	0.000	23.81	0.00	0.000	28.93	0.01	0.000
12	0.00	0.33	0.919	5.06	0.00	0.175	25.68	0.00	0.000	31.00	0.00	0.000	25.61	0.02	0.000	25.81	0.02	0.000
13	0.00	0.00	0.901	11.68	0.00	0.145	27.49	0.00	0.000	30.31	0.00	0.000	22.37	0.03	0.000	18.68	0.00	0.000
14	9.05	0.00	0.889	14.42	0.00	0.125	25.81	0.00	0.000	29.68	0.02	0.000	23.18	0.51	0.000	15.62	0.31	0.000
15	13.55	0.00	0.870	13.55	0.00	0.110	24.87	0.00	0.000	28.62	0.00	0.000	19.74	0.44	0.000	13.37	0.00	0.000
16	18.27	0.00	0.855	11.05	0.00	0.098	23.68	0.00	0.000	26.31	0.00	0.000	20.68	0.03	0.000	17.56	0.00	0.000
17	17.12	0.00	0.839	15.31	0.00	0.082	19.31	0.00	0.000	28.37	0.15	0.000	20.62	0.01	0.000	20.00	0.00	0.000
18	13.74	0.11	0.820	17.43	0.00	0.067	12.74	0.00	0.000	25.31	0.00	0.000	18.18	0.08	0.000	21.04	0.00	0.000
19	7.30	0.07	0.800	19.24	0.20	0.057	16.12	0.00	0.000	25.12	0.00	0.000	17.62	0.00	0.000	19.37	0.00	0.000
20	6.37	0.00	0.778	17.00	0.35	0.045	21.68	0.00	0.000	25.50	0.00	0.000	17.49	0.00	0.000	23.43	0.00	0.000
21	10.68	0.00	0.758	15.37	0.19	0.034	24.31	0.00	0.000	27.43	0.10	0.000	17.87	0.00	0.000	18.68	0.13	0.000
22	12.43	0.00	0.735	18.62	0.00	0.025	26.68	0.00	0.000	26.56	0.04	0.000	22.62	0.00	0.000	18.37	0.00	0.000
23	16.18	0.00	0.710	19.31	0.05	0.018	24.37	0.00	0.000	27.12	0.00	0.000	23.81	0.00	0.000	21.24	0.00	0.000
24	13.43	0.00	0.685	17.04	0.11	0.007	25.04	0.30	0.000	29.93	0.20	0.000	23.68	0.00	0.000	21.56	0.00	0.000
25	13.55	0.00	0.660	17.49	0.29	0.000	25.75	0.00	0.000	27.75	0.20	0.000	21.62	0.00	0.000	23.06	0.00	0.000
26	10.87	0.06	0.640	18.62	0.68	0.000	26.43	0.02	0.000	27.87	0.00	0.000	22.68	0.23	0.000	21.50	0.00	0.000
27	11.24	0.00	0.613	20.24	0.04	0.000	29.62	0.00	0.000	28.43	0.00	0.000	20.37	0.00	0.000	20.31	0.00	0.000
28	12.55	0.00	0.583	19.24	0.00	0.000	29.31	0.00	0.000	28.06	0.10	0.000	24.12	0.00	0.000	20.31	0.00	0.000
29	9.24	0.00	0.560	20.37	0.00	0.000	28.06	0.00	0.000	28.12	0.17	0.000	22.62	0.00	0.000	20.50	0.00	0.000
30	7.43	0.00	0.790	15.43	0.17	0.000	26.18	0.00	0.000	28.31	0.00	0.000	22.24	0.10	0.000	22.43	0.00	0.000
31				15.68	0.00	0.000				24.62	0.00	0.000	23.62	0.00	0.000			

ORIGINAL PAGE IS
OF POOR QUALITY

BANGO/MARTINEC MODEL VERSION KCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1979 RUN OF MODEL MADE 10/ 6/81

DAILY CLIMATOLOGICAL DATA FOR ZONE 2

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE	PREC.	SNOW	DEGREE	PREC.	SNOW	DEGREE	PREC.	SNOW	DEGREE	PREC.	SNOW	DEGREE	PREC.	SNOW	DEGREE	PREC.	SNOW
	DAYS	IN.	COVER	DAYS	IN.	COVER	DAYS	IN.	COVER	DAYS	IN.	COVER	DAYS	IN.	COVER	DAYS	IN.	COVER
1	0.00	0.00	1.000	0.00	0.00	0.958	7.22	0.00	0.247	20.16	0.00	0.000	20.40	0.00	0.000	20.61	0.00	0.000
2	0.00	0.00	1.000	0.00	0.00	0.952	10.56	0.11	0.219	20.01	0.00	0.000	22.11	0.00	0.000	16.88	0.00	0.000
3	0.00	0.00	1.000	0.00	0.00	0.948	19.54	0.00	0.195	19.46	0.00	0.000	20.66	0.00	0.000	20.51	0.00	0.000
4	0.00	0.00	1.000	0.85	0.02	0.940	13.82	0.00	0.168	19.01	0.00	0.000	19.98	0.00	0.000	22.51	0.00	0.000
5	0.40	0.00	1.000	6.75	0.00	0.932	16.27	0.00	0.145	20.40	0.00	0.000	21.88	0.00	0.000	20.16	0.00	0.000
6	8.03	0.00	1.000	10.69	0.00	0.928	17.77	0.00	0.128	20.90	0.10	0.000	22.07	0.00	0.000	22.11	0.00	0.000
7	4.11	0.00	1.000	6.80	2.43	0.919	13.48	0.00	0.110	20.06	0.00	0.000	21.43	0.00	0.000	22.56	0.00	0.000
8	3.38	0.00	1.000	1.19	0.58	0.909	5.25	0.10	0.098	21.32	0.00	0.000	18.80	0.00	0.000	21.66	0.00	0.000
9	0.00	0.39	1.000	0.00	0.56	0.898	3.56	0.00	0.085	23.01	0.00	0.000	17.14	0.08	0.000	19.77	0.00	0.000
10	0.00	1.16	1.000	0.00	0.26	0.883	8.45	0.00	0.075	25.01	0.00	0.000	17.48	0.22	0.000	24.01	0.00	0.000
11	0.00	1.04	1.000	0.00	0.00	0.869	16.01	0.00	0.067	25.79	0.00	0.000	17.32	0.00	0.000	22.01	0.01	0.000
12	0.00	0.78	1.000	0.00	0.00	0.848	19.72	0.00	0.058	26.85	0.00	0.000	16.80	0.02	0.000	21.40	0.02	0.000
13	0.00	0.00	1.000	1.57	0.00	0.833	21.27	0.00	0.048	23.82	0.00	0.000	16.66	0.03	0.000	14.79	0.00	0.000
14	1.54	0.00	1.000	3.28	0.00	0.790	19.32	0.00	0.040	23.72	0.02	0.000	15.14	0.51	0.000	15.11	0.31	0.000
15	6.04	0.00	1.000	1.88	0.00	0.760	19.16	0.00	0.032	21.88	0.00	0.000	14.56	0.44	0.000	9.74	0.00	0.000
16	15.24	0.00	1.000	1.46	0.00	0.730	17.72	0.00	0.029	19.82	0.00	0.000	12.64	0.03	0.000	14.19	0.00	0.000
17	10.38	0.00	1.000	8.82	0.00	0.707	12.82	0.00	0.021	22.66	0.15	0.000	15.95	0.01	0.000	15.25	0.00	0.000
18	8.56	0.25	0.999	10.43	0.00	0.680	6.33	0.00	0.019	22.98	0.00	0.000	14.29	0.08	0.000	17.69	0.00	0.000
19	0.00	0.17	0.998	11.98	0.46	0.647	11.45	0.00	0.012	22.53	0.00	0.000	12.95	0.00	0.000	15.74	0.00	0.000
20	0.64	0.00	0.995	12.85	0.30	0.615	17.79	0.00	0.009	21.35	0.00	0.000	11.27	0.00	0.000	16.43	0.00	0.000
21	2.64	0.00	0.993	11.74	0.32	0.589	19.90	0.00	0.006	22.51	0.10	0.000	12.16	0.00	0.000	14.79	0.13	0.000
22	3.35	0.00	0.991	13.95	0.00	0.559	20.72	0.00	0.002	21.11	0.04	0.000	17.95	0.00	0.000	14.74	0.00	0.000
23	10.22	0.00	0.989	12.82	0.07	0.525	18.66	0.00	0.000	22.45	0.00	0.000	19.40	0.00	0.000	16.06	0.00	0.000
24	6.43	0.00	0.987	11.61	0.23	0.500	19.61	0.00	0.000	25.01	0.20	0.000	19.79	0.00	0.000	16.11	0.00	0.000
25	9.04	0.00	0.982	11.27	0.68	0.460	22.64	0.00	0.000	24.64	0.20	0.000	16.95	0.00	0.000	17.61	0.00	0.000
26	3.09	0.13	0.980	11.88	0.25	0.434	23.58	0.02	0.000	24.24	0.00	0.000	16.72	0.23	0.000	17.35	0.00	0.000
27	3.58	0.00	0.978	12.98	0.09	0.400	24.95	0.00	0.000	25.58	0.00	0.000	12.59	0.00	0.000	15.90	0.00	0.000
28	2.96	0.00	0.970	11.98	0.00	0.367	24.90	0.00	0.000	24.69	0.10	0.000	17.38	0.00	0.000	17.98	0.00	0.000
29	1.90	0.00	0.969	12.59	0.00	0.335	24.69	0.00	0.000	25.53	0.17	0.000	15.88	0.00	0.000	16.35	0.00	0.000
30	0.00	0.00	0.962	8.43	0.40	0.305	20.22	0.00	0.000	23.90	0.00	0.000	14.98	0.10	0.000	19.58	0.00	0.000
31				9.72	0.00	0.275				19.95	0.00	0.000	18.95	0.00	0.000			

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1979 RUN OF MODEL MADE 10/ 6/81

DAILY CLIMATOLOGICAL DATA FOR ZONE 3

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.00	1.000	0.00	0.00	1.000	1.48	0.00	0.850	14.68	0.00	0.171	16.16	0.00	0.003	15.38	0.00	0.000
2	0.00	0.00	1.000	0.00	0.00	1.000	5.57	0.41	0.833	15.27	0.00	0.159	16.88	0.00	0.002	10.39	0.00	0.000
3	0.00	0.00	1.000	0.00	0.00	1.000	3.31	0.00	0.815	14.18	0.05	0.147	15.11	0.00	0.001	15.77	0.00	0.000
4	0.00	0.00	1.000	0.00	0.00	1.000	7.59	0.30	0.798	14.27	0.00	0.136	13.00	0.00	0.000	17.77	0.00	0.000
5	0.00	0.00	1.000	0.00	0.00	1.000	10.29	0.00	0.775	16.16	0.00	0.125	15.39	0.00	0.000	14.68	0.00	0.000
6	4.36	0.00	1.000	2.72	0.00	0.999	11.79	0.00	0.750	16.66	0.00	0.118	14.61	0.00	0.000	16.88	0.00	0.000
7	0.00	0.00	1.000	0.00	3.79	0.999	6.50	0.32	0.720	15.07	0.00	0.109	14.70	0.00	0.000	17.57	0.00	0.000
8	0.00	0.00	1.000	0.00	0.88	0.998	0.00	0.84	0.700	15.09	0.00	0.099	10.32	0.33	0.000	16.18	0.00	0.000
9	0.00	0.61	1.000	0.00	0.88	0.998	0.00	0.00	0.670	18.27	0.00	0.075	9.41	0.11	0.000	13.79	0.00	0.000
10	0.00	1.81	1.000	0.00	0.36	0.995	3.97	0.00	0.645	20.27	0.00	0.089	10.50	0.17	0.000	19.27	0.00	0.000
11	0.00	1.66	1.000	0.00	0.00	0.992	11.27	0.00	0.625	22.05	0.00	0.082	11.09	1.33	0.000	17.27	0.00	0.000
12	0.00	1.21	1.000	0.00	0.00	0.990	13.98	0.00	0.599	22.86	0.05	0.078	8.32	0.78	0.000	17.16	0.00	0.000
13	0.00	0.00	1.000	0.00	0.00	0.989	15.29	0.00	0.571	17.59	0.03	0.077	11.18	0.32	0.000	11.05	0.00	0.000
14	0.00	0.00	1.000	0.00	0.00	0.987	13.09	0.11	0.550	17.98	0.06	0.065	7.41	0.44	0.000	14.41	0.42	0.000
15	0.00	0.00	1.000	0.00	0.00	0.982	13.68	0.00	0.523	15.39	0.07	0.060	9.57	0.60	0.000	6.25	0.00	0.000
16	10.38	0.00	1.000	0.00	0.00	0.980	11.98	0.45	0.500	13.59	0.00	0.055	4.91	0.11	0.000	10.95	0.00	0.000
17	3.89	0.00	1.000	2.59	0.00	0.977	6.59	0.00	0.475	17.18	0.00	0.050	11.47	0.00	0.000	11.86	0.00	0.000
18	3.57	0.39	1.000	3.70	0.00	0.971	0.00	0.00	0.450	20.73	0.00	0.046	10.55	0.00	0.000	14.45	0.00	0.000
19	0.00	0.26	1.000	5.00	0.70	0.967	6.97	0.00	0.421	20.04	0.00	0.041	8.47	0.00	0.000	12.25	0.00	0.000
20	0.00	0.00	1.000	8.86	0.29	0.961	14.05	0.00	0.395	17.36	0.01	0.038	5.29	0.00	0.000	9.70	1.18	0.000
21	0.00	0.00	1.000	8.25	0.45	0.958	13.66	0.00	0.371	17.77	0.07	0.032	5.68	0.00	0.000	11.05	0.00	0.000
22	0.00	0.00	1.000	9.47	0.00	0.950	14.98	0.00	0.350	15.88	0.00	0.029	13.47	0.00	0.000	11.25	0.00	0.000
23	4.48	0.00	1.000	6.59	0.09	0.943	13.18	0.00	0.326	17.97	0.00	0.026	15.16	0.00	0.000	11.07	0.00	0.000
24	0.00	0.00	1.000	6.38	0.33	0.938	14.38	0.00	0.306	20.27	0.00	0.022	16.05	0.00	0.000	10.88	0.00	0.000
25	0.00	0.00	1.000	5.29	1.06	0.930	19.64	0.00	0.280	21.64	0.00	0.020	12.47	0.10	0.000	12.38	0.00	0.000
26	0.00	0.21	1.000	5.39	0.16	0.922	20.84	0.00	0.260	20.75	0.00	0.018	10.98	0.00	0.000	13.36	0.00	0.000
27	0.00	0.00	1.000	5.00	0.14	0.912	20.47	0.00	0.240	22.84	0.00	0.015	5.11	0.00	0.000	11.66	0.00	0.000
28	0.00	0.00	1.000	5.00	0.00	0.902	20.66	0.00	0.225	21.45	3.10	0.012	10.89	0.00	0.000	13.73	0.00	0.000
29	0.00	0.00	1.000	5.11	0.00	0.892	21.45	0.00	0.202	23.04	0.02	0.009	9.39	0.00	0.000	12.36	0.00	0.000
30	0.00	0.00	1.000	1.70	0.63	0.880	14.48	0.00	0.182	19.66	0.01	0.008	8.00	0.00	0.000	16.84	0.00	0.000
31				3.98	0.00	0.862				15.47	0.00	0.005	14.47	0.00	0.000			

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.,

THE RUN IS FOR THE YEAR OF 1979 RUN OF MODEL MADE 10/ 6/81

WATERSHED MELT AND RUNOFF COEFFICIENTS

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	1	15	30	1	15	30	1	15	30	1	15	30	1	15	30	1	15	30
DATA FOR ZONE 1:																		
MELT FACTORS	0.040	0.040	0.040	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070
RUNOFF COEF.	0.600	0.250	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
PREC. METHOD	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
DATA FOR ZONE 2:																		
MELT FACTORS	0.040	0.040	0.040	0.060	0.060	0.110	0.110	0.110	0.110	0.110	0.110	0.110	0.110	0.110	0.110	0.110	0.110	0.110
RUNOFF COEF.	0.650	0.650	0.650	0.650	0.650	0.600	0.500	0.500	0.300	0.200	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150
PREC. METHOD	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
DATA FOR ZONE 3:																		
MELT FACTORS	0.040	0.040	0.040	0.040	0.040	0.050	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
RUNOFF COEF.	0.750	0.750	0.750	0.750	0.750	0.750	0.650	0.650	0.450	0.400	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150
PREC. METHOD	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1

NOTE: PREC. METHOD:
0 = PREC. RUNOFF COMPUTED FOR NON-SNOWCOVERED AREAS ONLY
1 = PREC. RUNOFF COMPUTED FOR ALL AREAS

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.
THE RUN IS FOR THE YEAR OF 1979 RUN OF MODEL MADE 10/ 6/81

COMPUTED DAILY RUNOFF FOR ZONE 1

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	782.9	0.0	0.0	0.0	0.0
2	0.0	583.3	178.1	0.0	0.0	0.0
3	0.0	360.8	0.0	0.0	0.0	0.0
4	0.0	645.2	0.0	0.0	0.0	0.0
5	925.9	788.8	0.0	0.0	0.0	0.0
6	2023.7	882.2	0.0	161.9	0.0	0.0
7	1805.0	1694.6	0.0	0.0	0.0	0.0
8	1891.1	644.5	161.9	0.0	0.0	0.0
9	997.3	7.6	0.0	0.0	129.5	0.0
10	0.0	0.0	0.0	0.0	356.1	0.0
11	0.0	0.0	0.0	0.0	0.0	16.2
12	0.0	573.3	0.0	0.0	32.4	32.4
13	0.0	241.4	0.0	0.0	48.6	0.0
14	1562.8	204.2	0.0	32.4	825.5	501.8
15	2289.9	168.9	0.0	0.0	712.2	0.0
16	1305.8	122.7	0.0	0.0	48.6	0.0
17	1162.5	142.3	0.0	242.8	16.2	0.0
18	951.9	136.3	0.0	0.0	129.5	0.0
19	501.0	448.0	0.0	0.0	0.0	0.0
20	401.1	653.2	0.0	0.0	0.0	0.0
21	655.2	366.8	0.0	161.9	0.0	210.4
22	739.4	52.7	0.0	64.7	0.0	0.0
23	929.8	120.3	0.0	0.0	0.0	0.0
24	744.6	227.8	485.6	323.7	0.0	0.0
25	723.8	469.4	0.0	323.7	0.0	0.0
26	606.8	1100.7	32.4	0.0	372.3	0.0
27	557.7	64.7	0.0	0.0	0.0	0.0
28	592.2	0.0	0.0	161.9	0.0	0.0
29	418.8	0.0	0.0	275.2	0.0	0.0
30	475.1	275.2	0.0	0.0	161.9	0.0
31		0.0		0.0	0.0	

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.
THE RUN IS FOR THE YEAR OF 1979 RUN OF MODEL MADE 10/ 6/81

COMPUTED DAILY RUNOFF FOR ZONE 2

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	0.0	1308.1	0.0	0.0	0.0
2	0.0	0.0	2429.9	0.0	0.0	0.0
3	0.0	0.0	1507.6	0.0	0.0	0.0
4	0.0	415.6	1703.1	0.0	0.0	0.0
5	138.7	3272.2	1730.5	0.0	0.0	0.0
6	2784.5	5159.9	1668.5	266.7	0.0	0.0
7	1425.2	4956.8	1087.7	0.0	0.0	0.0
8	1172.0	562.6	1044.2	0.0	0.0	0.0
9	0.0	0.0	222.0	0.0	160.0	0.0
10	0.0	0.0	464.9	0.0	440.1	0.0
11	0.0	0.0	786.8	0.0	0.0	20.0
12	0.0	0.0	839.0	0.0	40.0	40.0
13	0.0	816.6	748.9	0.0	60.0	0.0
14	534.0	1706.1	566.9	53.3	1020.3	620.2
15	2094.4	977.9	449.7	0.0	880.2	0.0
16	5284.6	1285.1	226.2	0.0	60.0	0.0
17	3599.4	6088.2	118.5	300.1	20.0	0.0
18	2967.5	6243.0	52.9	0.0	160.0	0.0
19	0.0	812.1	60.5	0.0	0.0	0.0
20	227.7	7880.5	70.5	0.0	0.0	0.0
21	909.0	7139.1	52.6	200.1	0.0	260.1
22	1151.2	6864.1	18.2	80.0	0.0	0.0
23	3504.9	6190.5	0.0	0.0	0.0	0.0
24	2200.7	6030.0	1200.3	400.1	0.0	0.0
25	2056.7	7501.7	0.0	400.1	0.0	0.0
26	1072.6	5670.7	80.0	0.0	460.1	0.0
27	1349.7	5002.3	0.0	0.0	0.0	0.0
28	995.6	3870.1	0.0	200.1	0.0	0.0
29	665.3	3712.5	0.0	340.1	0.0	0.0
30	0.0	4487.8	0.0	0.0	200.1	0.0
31		2352.9		0.0	0.0	

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1979 RUN OF MODEL MADE 10/ 6/81

COMPUTED DAILY RUNOFF FOR ZONE 3

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	0.0	1894.0	1976.9	14.3	0.0
2	0.0	0.0	6905.2	1912.0	10.0	0.0
3	0.0	0.0	3452.2	1922.8	4.5	0.0
4	0.0	0.0	8305.0	1528.4	0.0	0.0
5	0.0	0.0	10205.5	1590.8	0.0	0.0
6	1839.4	1146.4	11316.0	1548.2	0.0	0.0
7	0.0	0.0	6808.1	1293.6	0.0	0.0
8	0.0	0.0	0.0	1176.5	696.1	0.0
9	0.0	0.0	0.0	1366.9	232.0	0.0
10	0.0	0.0	5080.5	1420.7	358.6	0.0
11	0.0	0.0	9988.2	1423.9	2805.5	0.0
12	0.0	0.0	10716.4	1685.5	1645.4	0.0
13	0.0	0.0	11172.7	1138.4	675.0	0.0
14	0.0	0.0	9665.8	1257.9	928.2	886.0
15	0.0	0.0	9156.0	1121.0	1265.7	0.0
16	4379.2	0.0	8154.7	220.7	232.0	0.0
17	1641.1	1334.4	2773.3	253.7	0.0	0.0
18	1506.1	1824.6	0.0	281.6	0.0	0.0
19	0.0	2793.4	2599.7	242.6	0.0	0.0
20	0.0	4609.5	4916.9	215.9	0.0	2489.1
21	0.0	4367.3	5147.3	315.6	0.0	0.0
22	0.0	4744.4	4645.1	136.0	0.0	0.0
23	1890.1	3331.3	3806.7	138.0	0.0	0.0
24	0.0	3321.7	3898.5	131.7	0.0	0.0
25	0.0	3377.0	4872.1	127.8	210.9	0.0
26	0.0	2752.4	4800.5	110.3	0.0	0.0
27	0.0	3015.6	4352.6	101.2	0.0	0.0
28	0.0	2378.4	4118.4	6615.3	0.0	0.0
29	0.0	2403.8	3838.8	103.4	0.0	0.0
30	0.0	788.2	2334.8	67.5	0.0	0.0
31		2098.9		22.8		

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1979 RUN OF MODEL MADE 10/ 6/81

DAY	STREAMFLOW FOR APRIL			STREAMFLOW FOR MAY			STREAMFLOW FOR JUNE			STREAMFLOW FOR JULY			STREAMFLOW FOR AUGUST			STREAMFLOW FOR SEPTEMBER		
	COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS	
1	223.	223.		2007.	1836.		6578.	6165.		4880.	5485.		1244.	1090.		481.	473.	
2	213.	411.		1901.	2014.		6356.	5973.		4597.	5199.		1151.	926.		453.	423.	
3	203.	243.		1787.	2047.		6586.	6175.		4339.	4892.		1067.	889.		426.	436.	
4	194.	247.		1688.	1926.		6512.	6446.		4104.	4435.		990.	814.		402.	389.	
5	201.	242.		1710.	2123.		6899.	6684.		3862.	3950.		919.	789.		379.	369.	
6	324.	294.		1972.	2481.		7430.	7441.		3653.	3800.		855.	698.		358.	370.	
7	597.	351.		2388.	2840.		7910.	8512.		3491.	3762.		796.	750.		339.	314.	
8	759.	446.		2616.	2725.		7789.	8642.		3289.	3754.		746.	693.		320.	272.	
9	866.	489.		2462.	2337.		7083.	7133.		3098.	3655.		742.	724.		304.	313.	
10	852.	464.		2251.	1903.		6463.	5782.		2943.	3394.		731.	743.		288.	319.	
11	794.	435.		2060.	1648.		6452.	5376.		2808.	3655.		769.	695.		273.	300.	
12	740.	385.		1902.	1532.		6900.	5030.		2688.	2501.		899.	859.		262.	304.	
13	691.	341.		1803.	1465.		7379.	7005.		2595.	2867.		950.	1064.		252.	298.	
14	691.	486.		1761.	1634.		7821.	7909.		2470.	2787.		951.	837.		249.	304.	
15	832.	624.		1756.	1954.		8060.	9033.		2371.	2701.		1081.	918.		325.	447.	
16	1224.	784.		1712.	2370.		8202.	8407.		2257.	2490.		1193.	1235.		308.	357.	
17	1840.	984.		1814.	2490.		8138.	9047.		2089.	2725.		1128.	1155.		292.	334.	
18	2184.	1255.		2293.	2877.		7545.	7072.		1977.	2673.		1050.	959.		277.	304.	
19	2321.	1350.		2864.	3712.		6800.	5946.		1836.	2354.		993.	967.		263.	282.	
20	2170.	1277.		3651.	4319.		6406.	5044.		1707.	2123.		922.	899.		261.	291.	
21	2066.	1264.		4497.	4493.		6264.	4824.		1590.	2076.		857.	850.		362.	319.	
22	2032.	1344.		5195.	5075.		6148.	5245.		1515.	1989.		798.	771.		365.	288.	
23	2138.	1394.		5778.	5778.		5987.	5700.		1418.	1823.		744.	699.		345.	279.	
24	2398.	1826.		6161.	5646.		5788.	5760.		1324.	1693.		695.	640.		327.	274.	
25	2440.	1856.		6545.	6049.		5758.	5640.		1288.	1570.		650.	613.		309.	273.	
26	2439.	1590.		6989.	6318.		5669.	5874.		1250.	1458.		626.	584.		293.	264.	
27	2380.	1611.		7214.	7289.		5587.	5891.		1164.	1389.		634.	592.		278.	259.	
28	2330.	1606.		7260.	7286.		5461.	5845.		1132.	1316.		593.	547.		264.	263.	
29	2254.	1760.		7150.	7643.		5324.	5519.		1520.	1414.		556.	509.		251.	259.	
30	2139.	1700.		7039.	7974.		5161.	5414.		1452.	1362.		524.	497.		239.	238.	
31				6851.	7622.					1345.	1206.		512.	508.				

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.
SUMMARY OF THE MODEL RUN FOR THE YEAR OF 1979 RUN OF MODEL MADE 10/ 6/81

NASH-SUTCLIFFE GOODNESS OF FIT METHOD - NSR**2 = 0.9666

ACTUAL SEASON VOLUME = 459828.000 CFS-DAYS

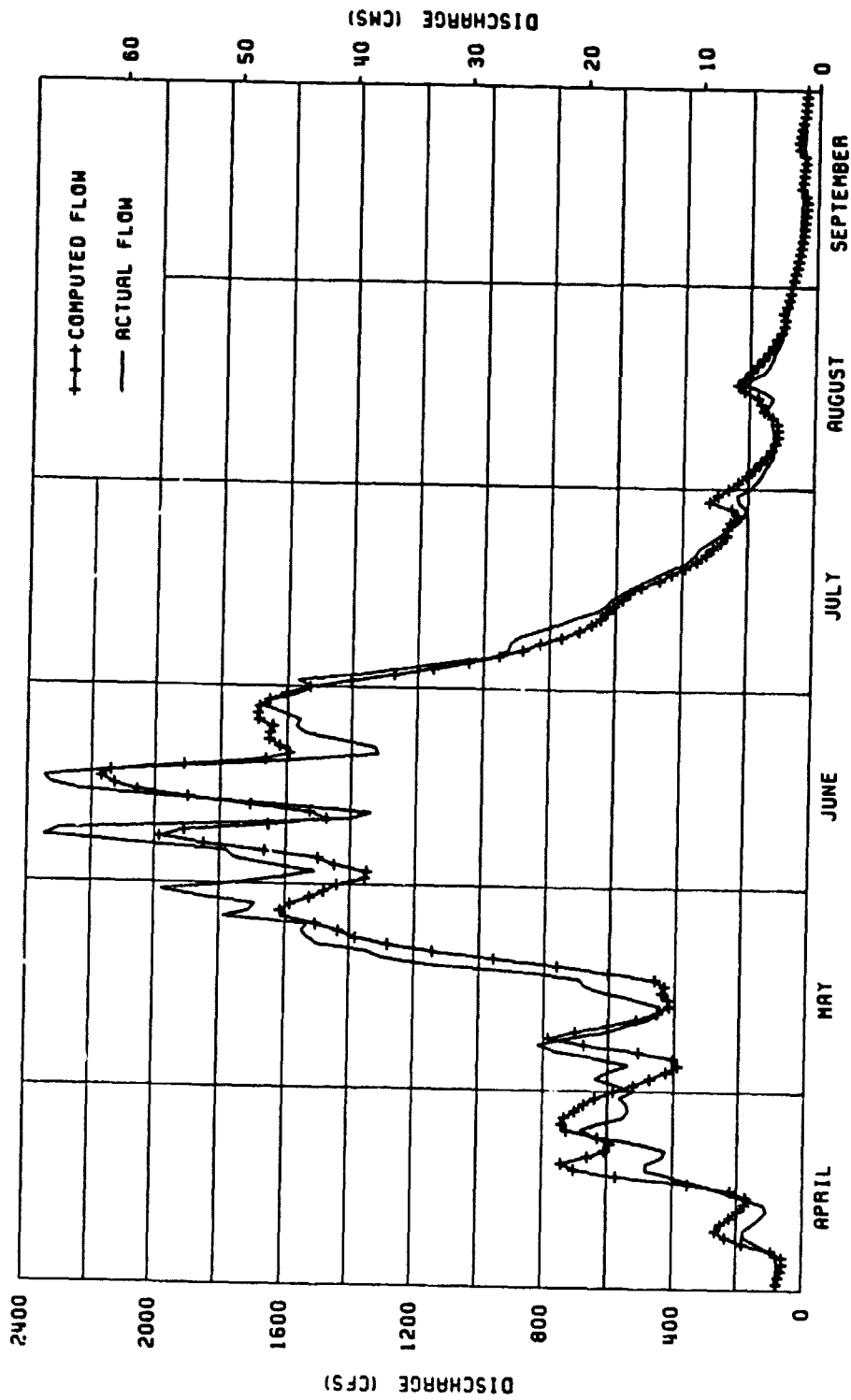
COMPUTED SEASON VOLUME = 466023.656 CFS-DAYS

SEASONAL DIFFERENCE IN PERCENT = 1.33

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APPENDIX G
Hydrographs for Snow-Cover
Estimation Methods

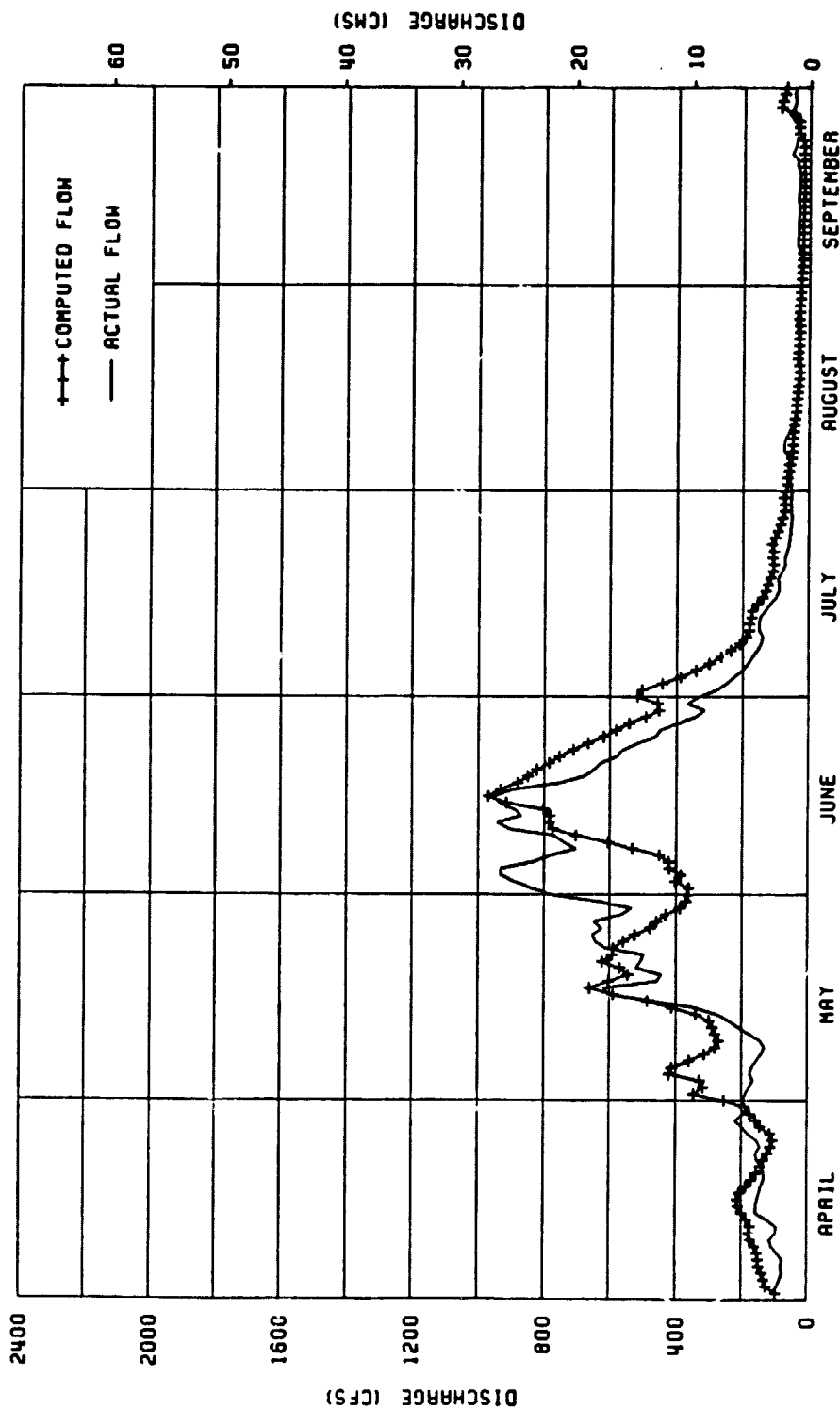
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SOUTH FORK OF RIO GRANDE RIVER AT SOUTH FORK, 1979.

MULTIPLE REGRESSION ESTIMATE OF SNOW COVER.

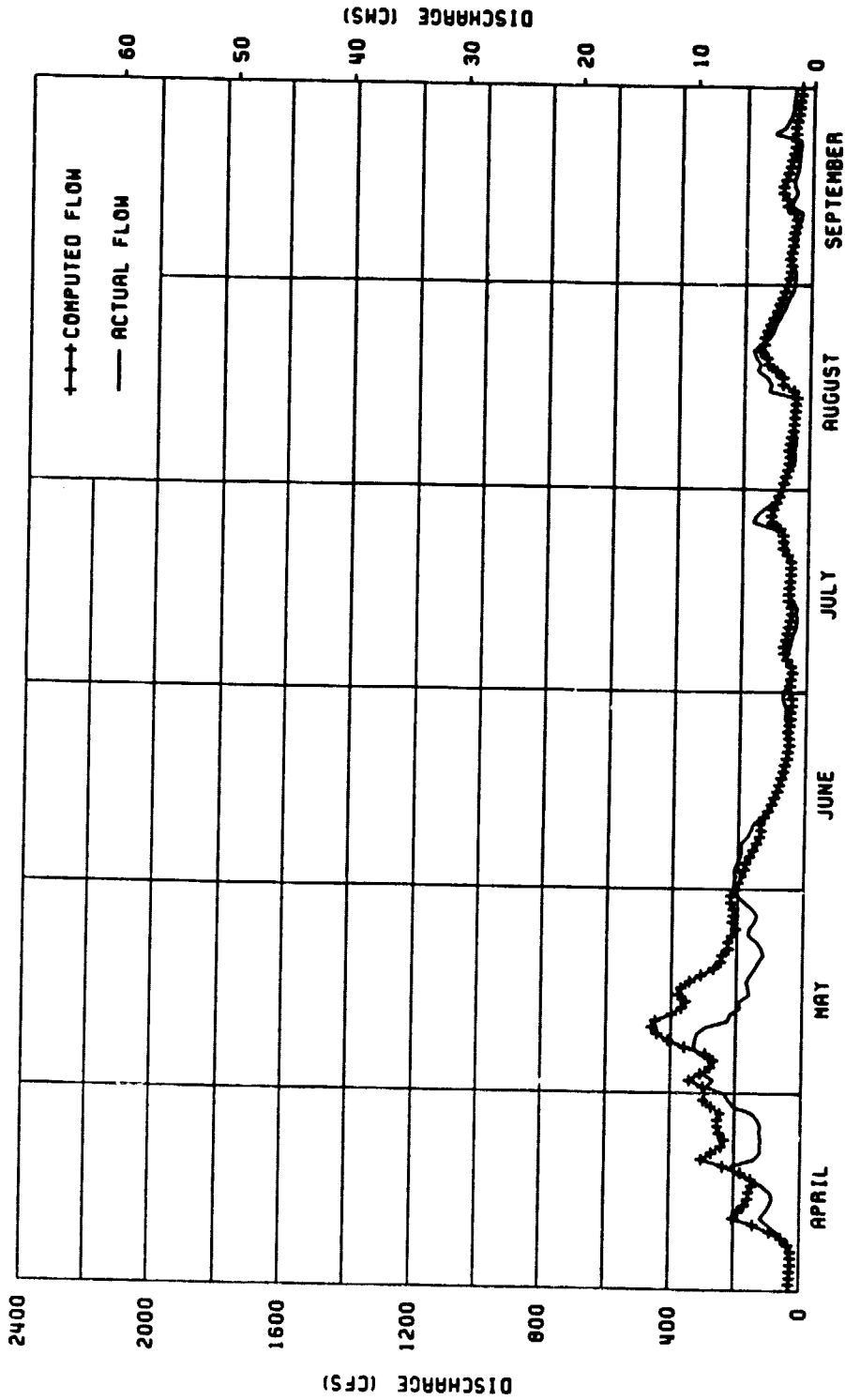
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SOUTH FORK OF RIO GRANDE RIVER AT SOUTH FORK, 1978.

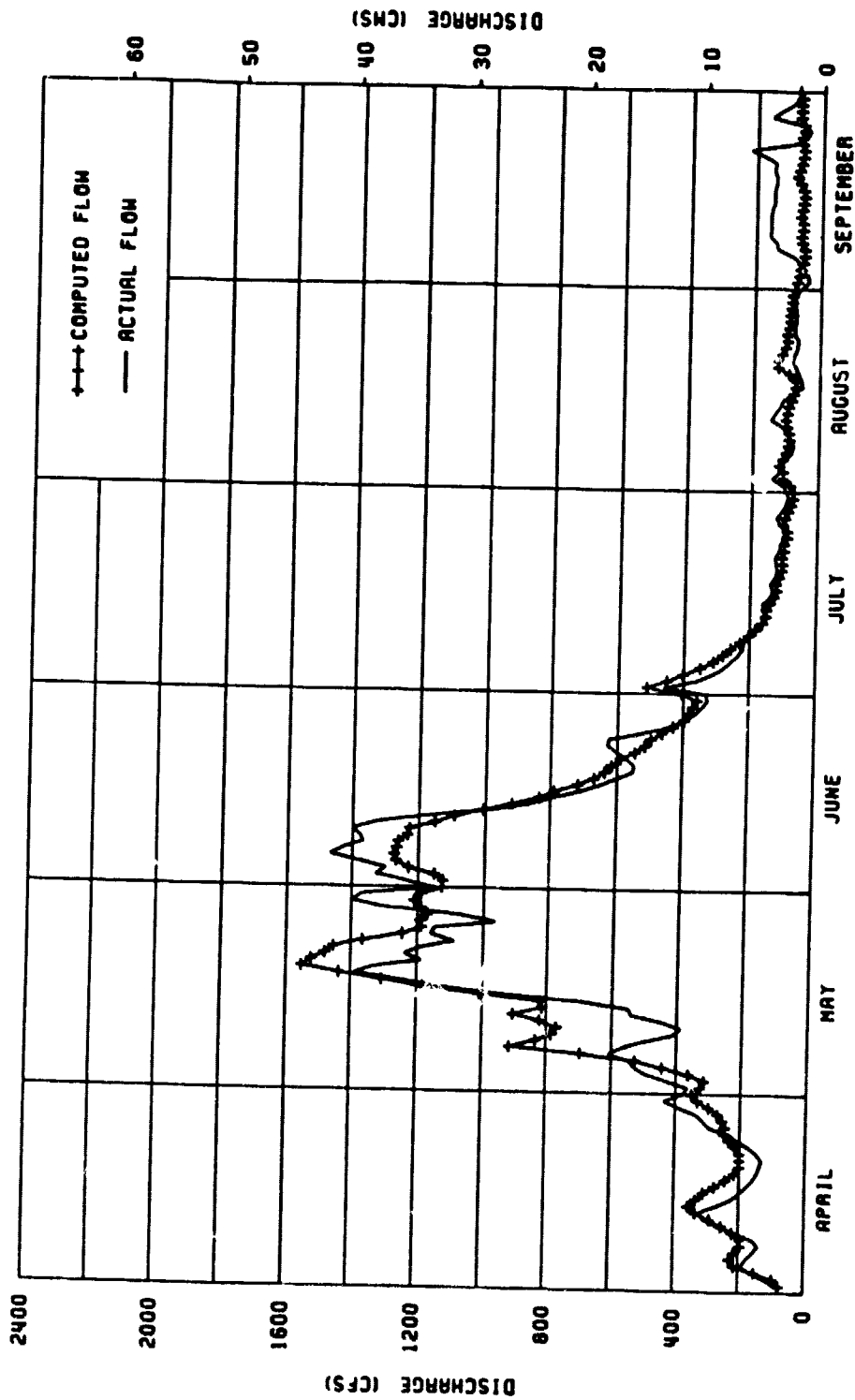
MULTIPLE REGRESSION ESTIMATE OF SNOW COVER.

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SOUTH FORK OF RIO GRANDE RIVER AT SOUTH FORK, 1977.
MULTIPLE REGRESSION ESTIMATE OF SNOW COVER.

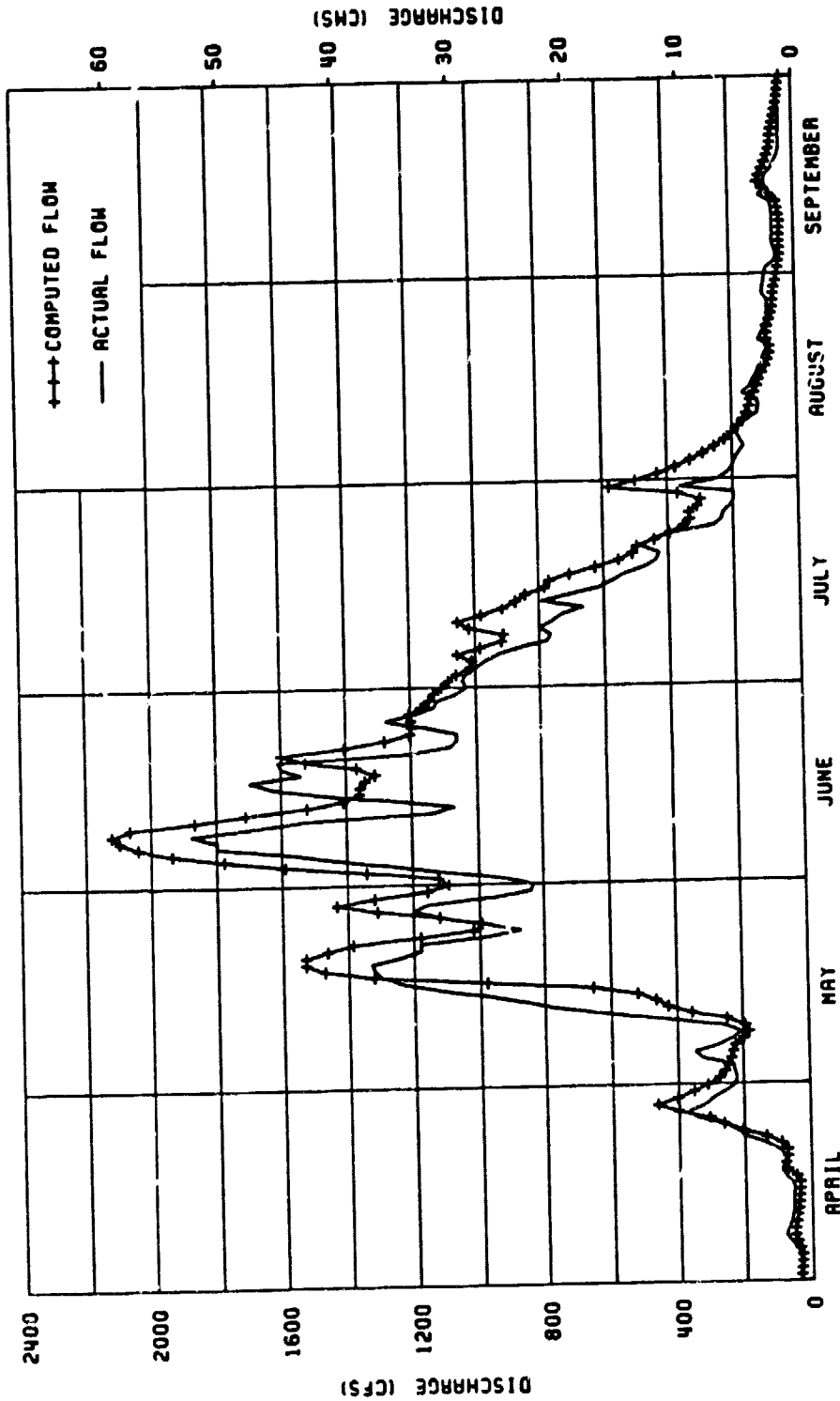
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SOUTH FORK OF RIO GRANDE RIVER AT SOUTH FORK, 1976.

MULTIPLE REGRESSION ESTIMATE OF SNOW COVER.

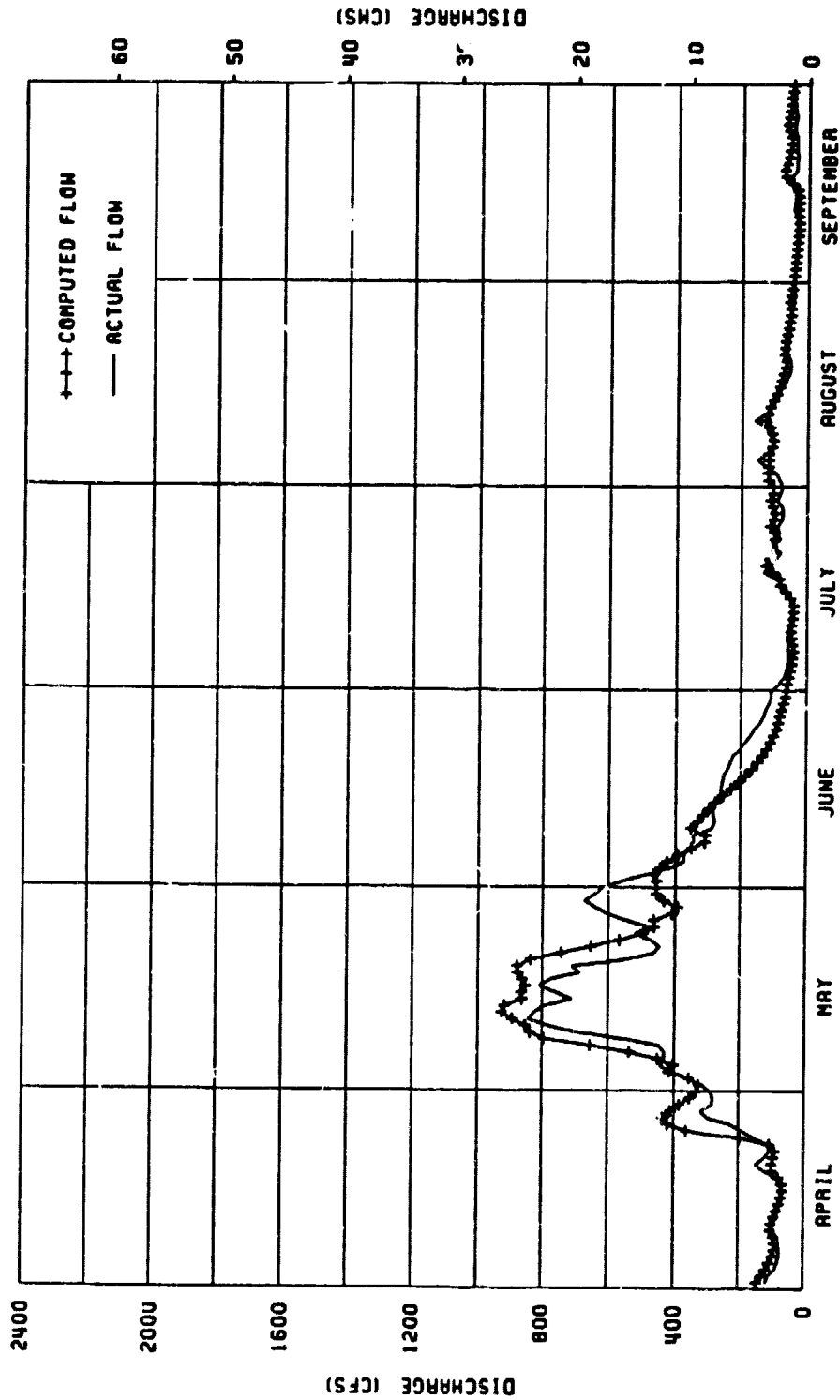
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SOUTH FORK OF RIO GRANDE RIVER AT SOUTH FORK, 1975.

MULTIPLE REGRESSION ESTIMATE OF SNOW COVER.

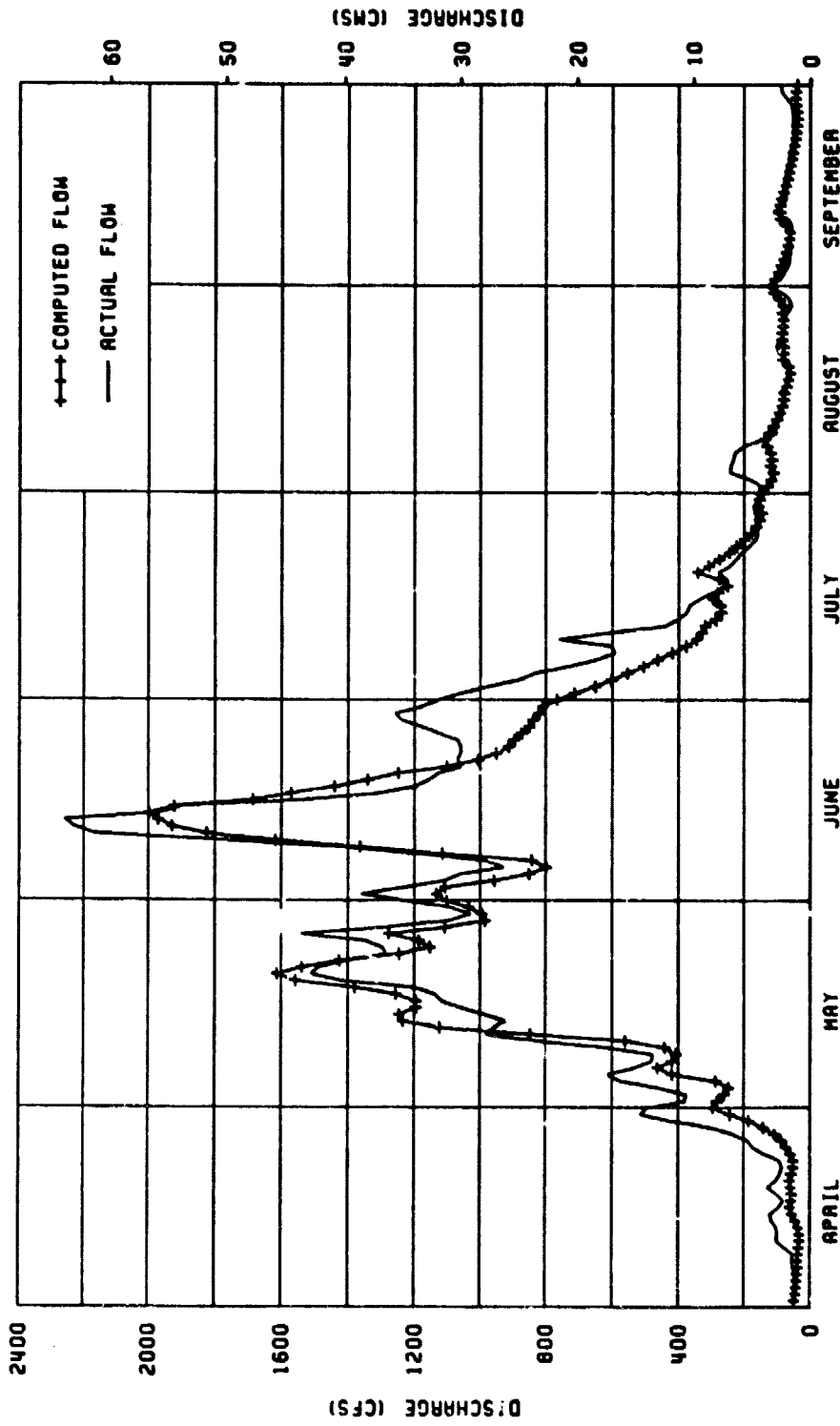
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SOUTH FORK OF RIO GRANDE RIVER AT SOUTH FORK, 1974.

MULTIPLE REGRESSION ESTIMATE OF SNOW COVER.

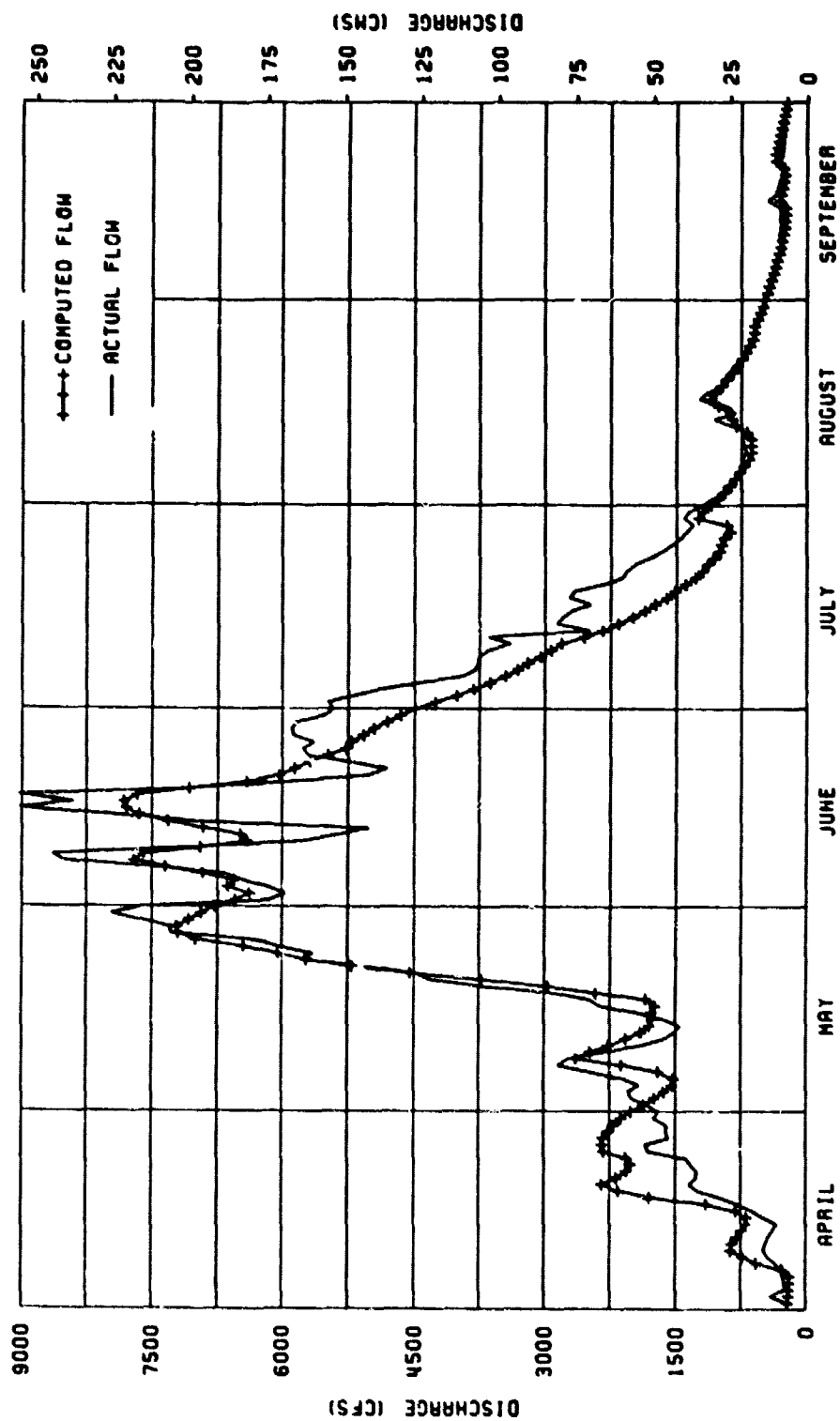
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SOUTH FORK OF RIO GRANDE RIVER AT SOUTH FORK, 1973.

MULTIPLE REGRESSION ESTIMATE OF SNOW COVER.

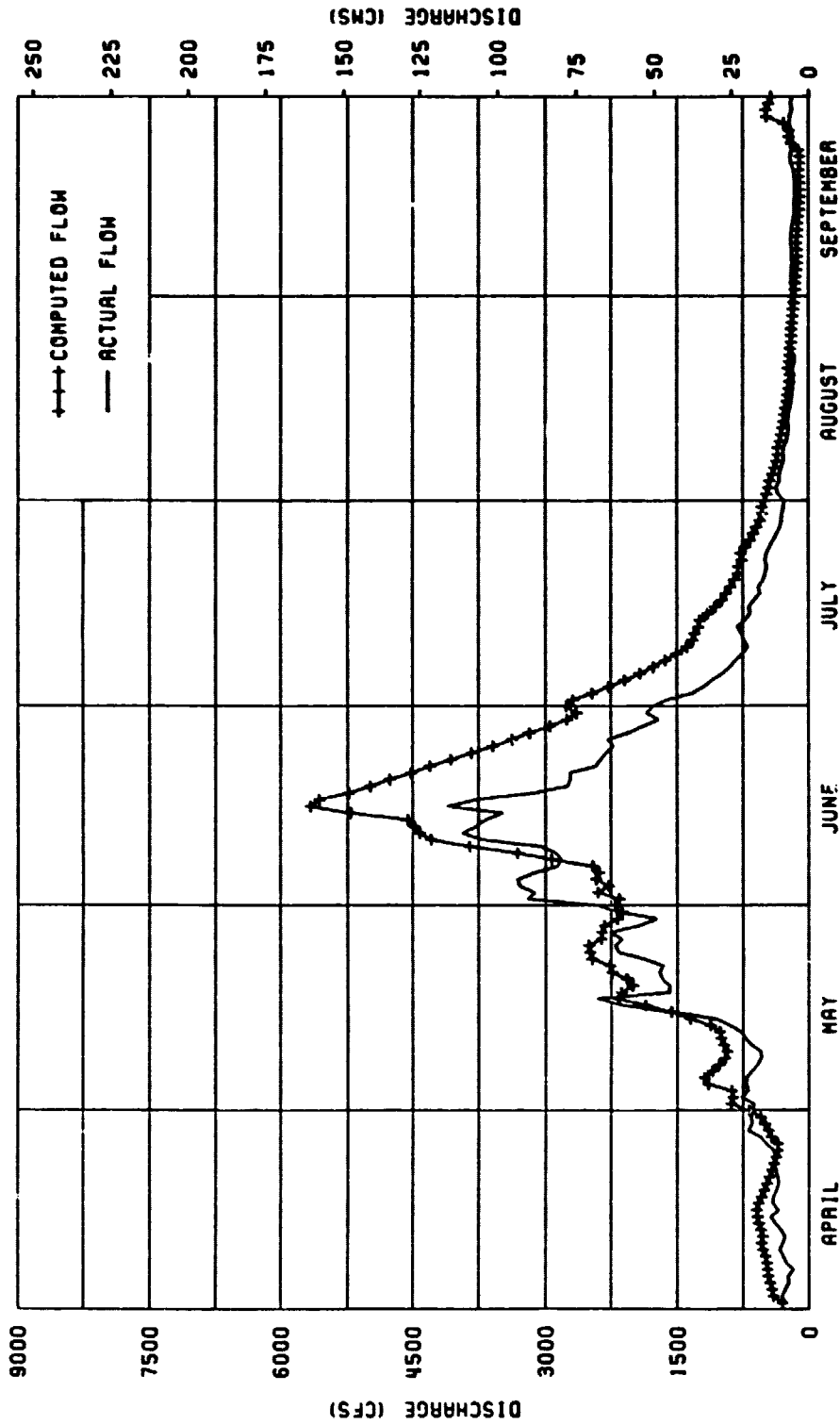
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RIO GRANDE RIVER NEAR DEL NORTE, COLORADO. 1979.

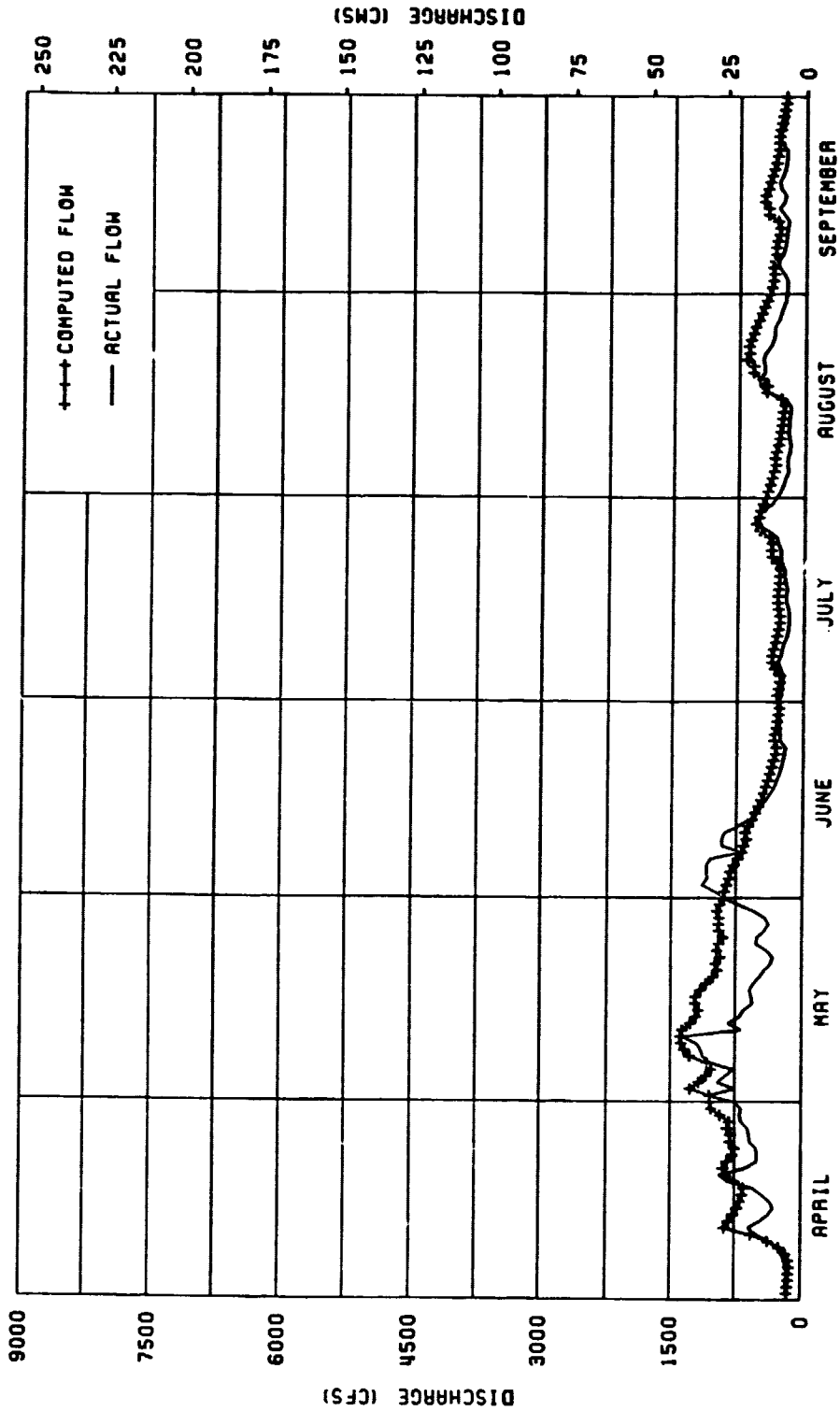
MULTIPLE REGRESSION ESTIMATE OF SNOW COVER.

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RIO GRANDE RIVER NEAR DEL NORTE, COLORADO, 1978.
MULTIPLE REGRESSION ESTIMATE OF SNOW COVER.

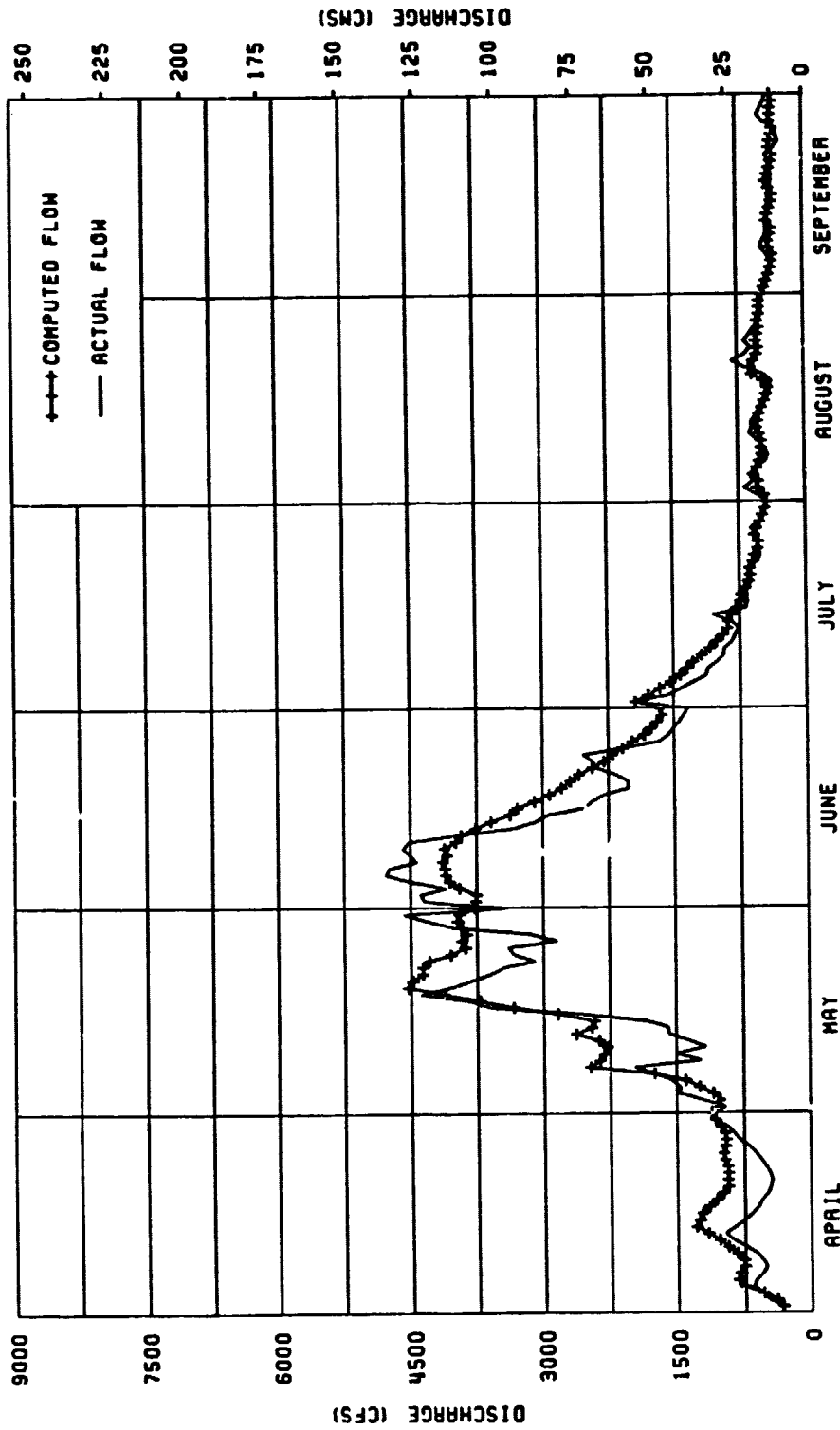
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RIO GRANDE RIVER NEAR DEL NORTE, COLORADO, 1977.

MULTIPLE REGRESSION ESTIMATE OF SNOW COVER.

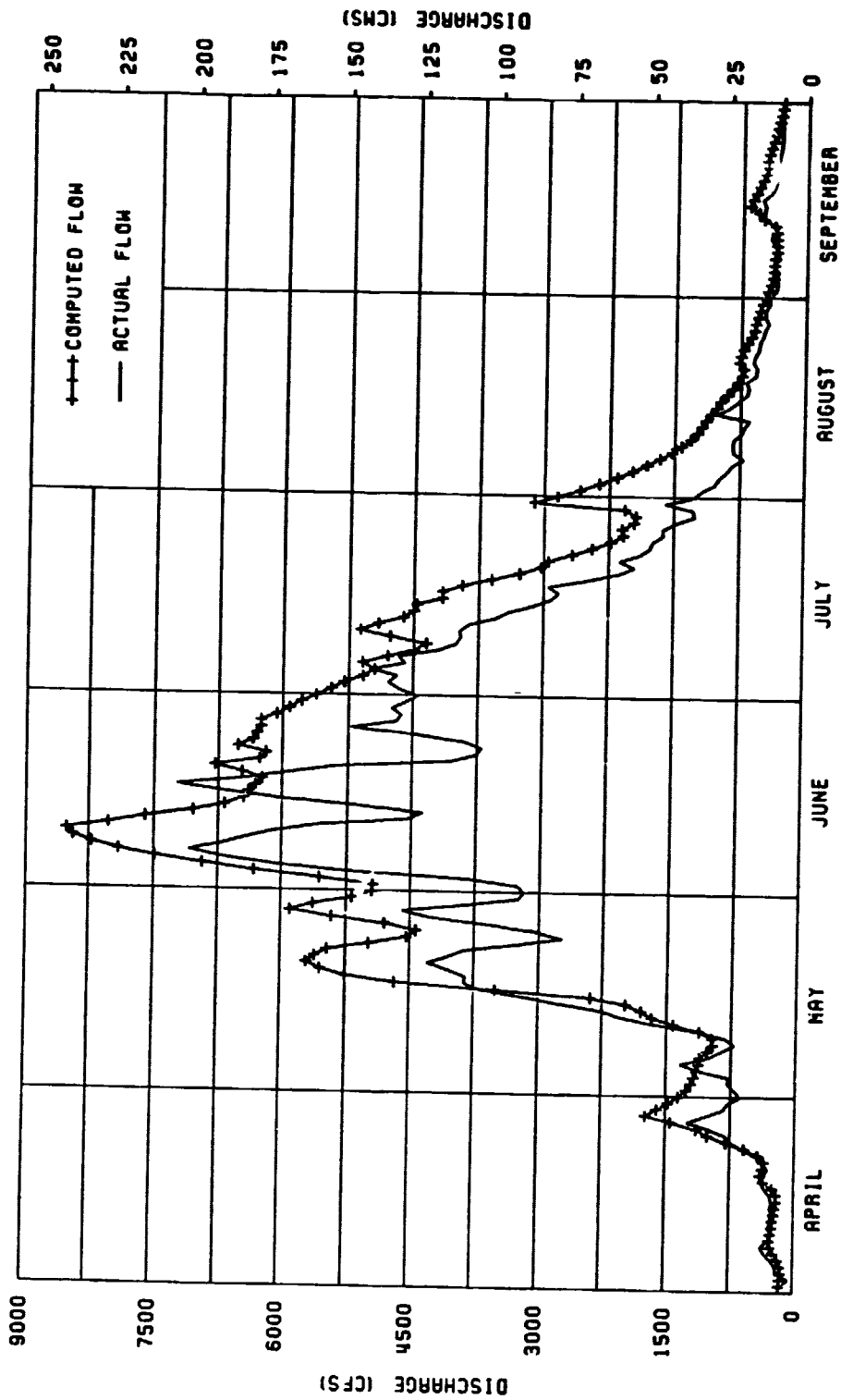
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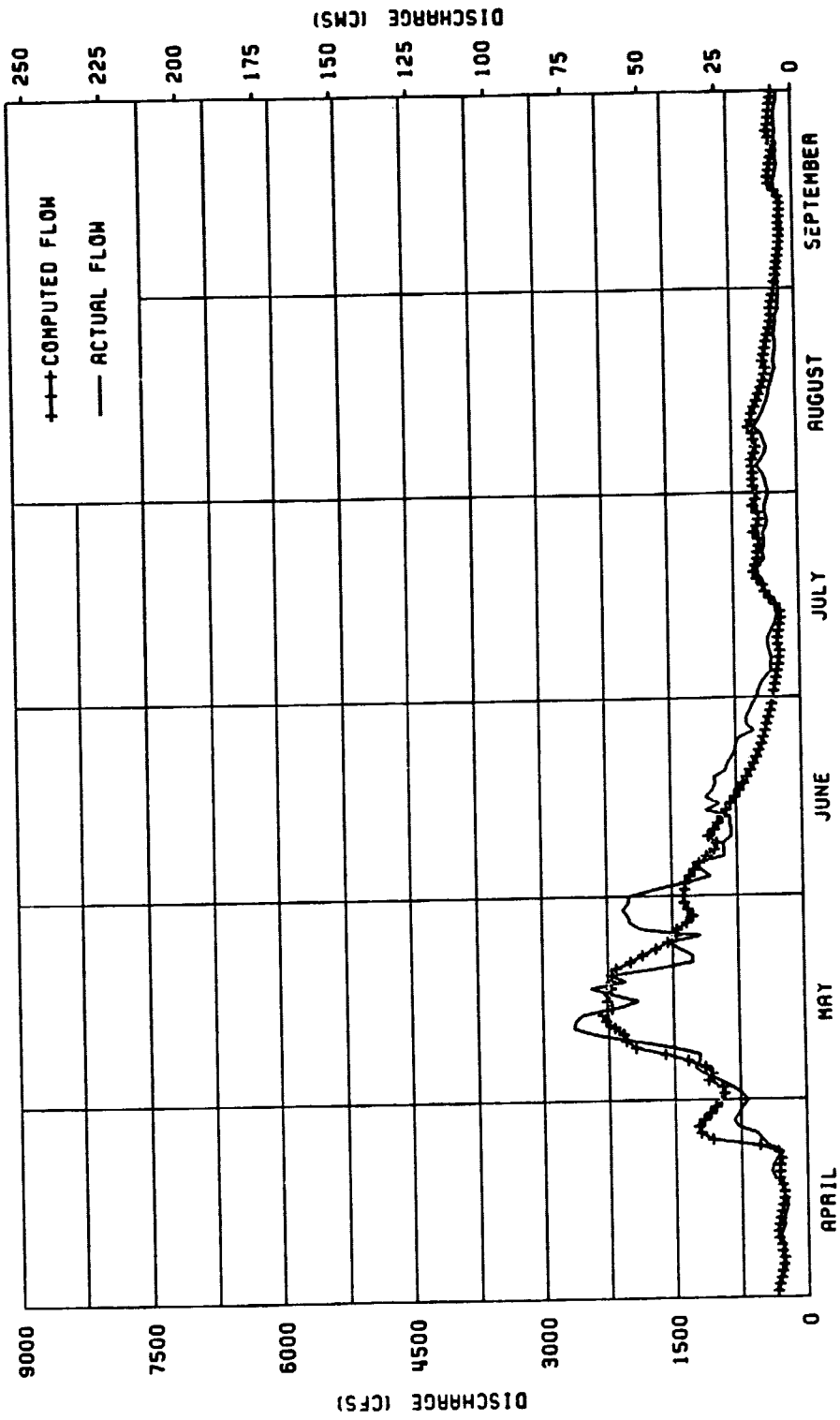
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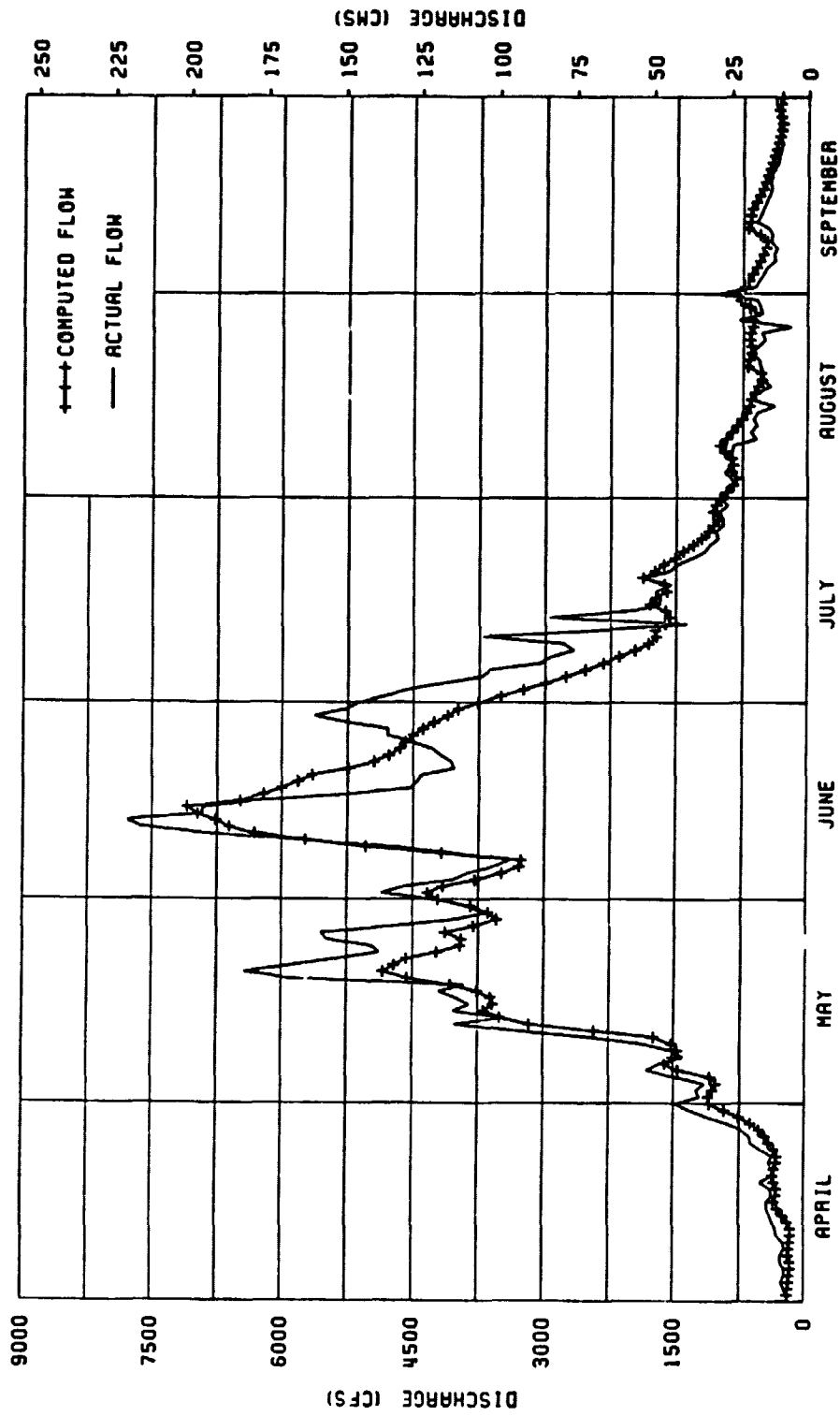
RIO GRANDE RIVER NEAR DEL NORTE, COLORADO, 1975.
MULTIPLE REGRESSION ESTIMATE OF SNOW COVER.

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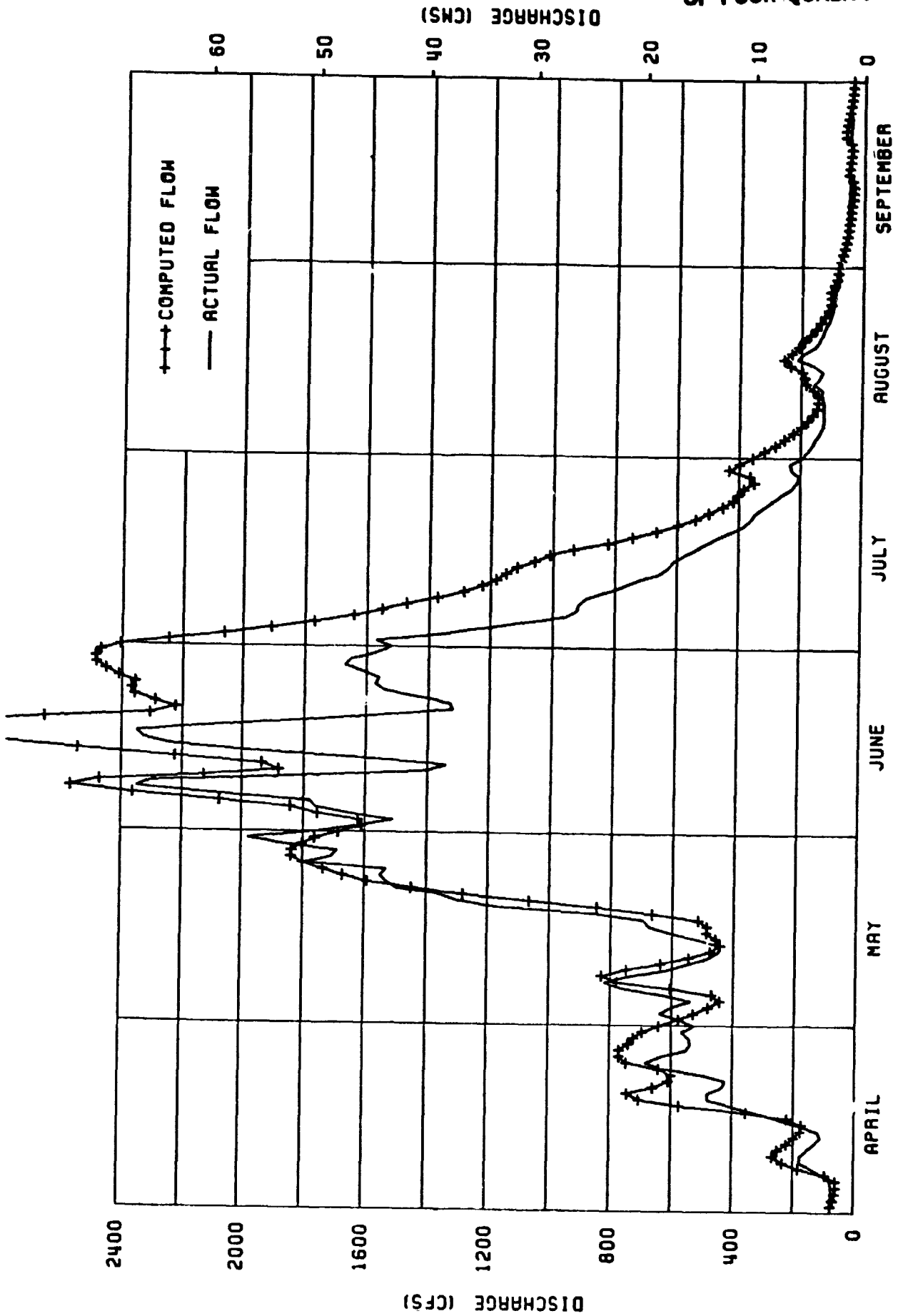
RIO GRANDE RIVER NEAR DEL NORTE, COLORADO. 1974.
MULTIPLE REGRESSION ESTIMATE OF SNOW COVER,

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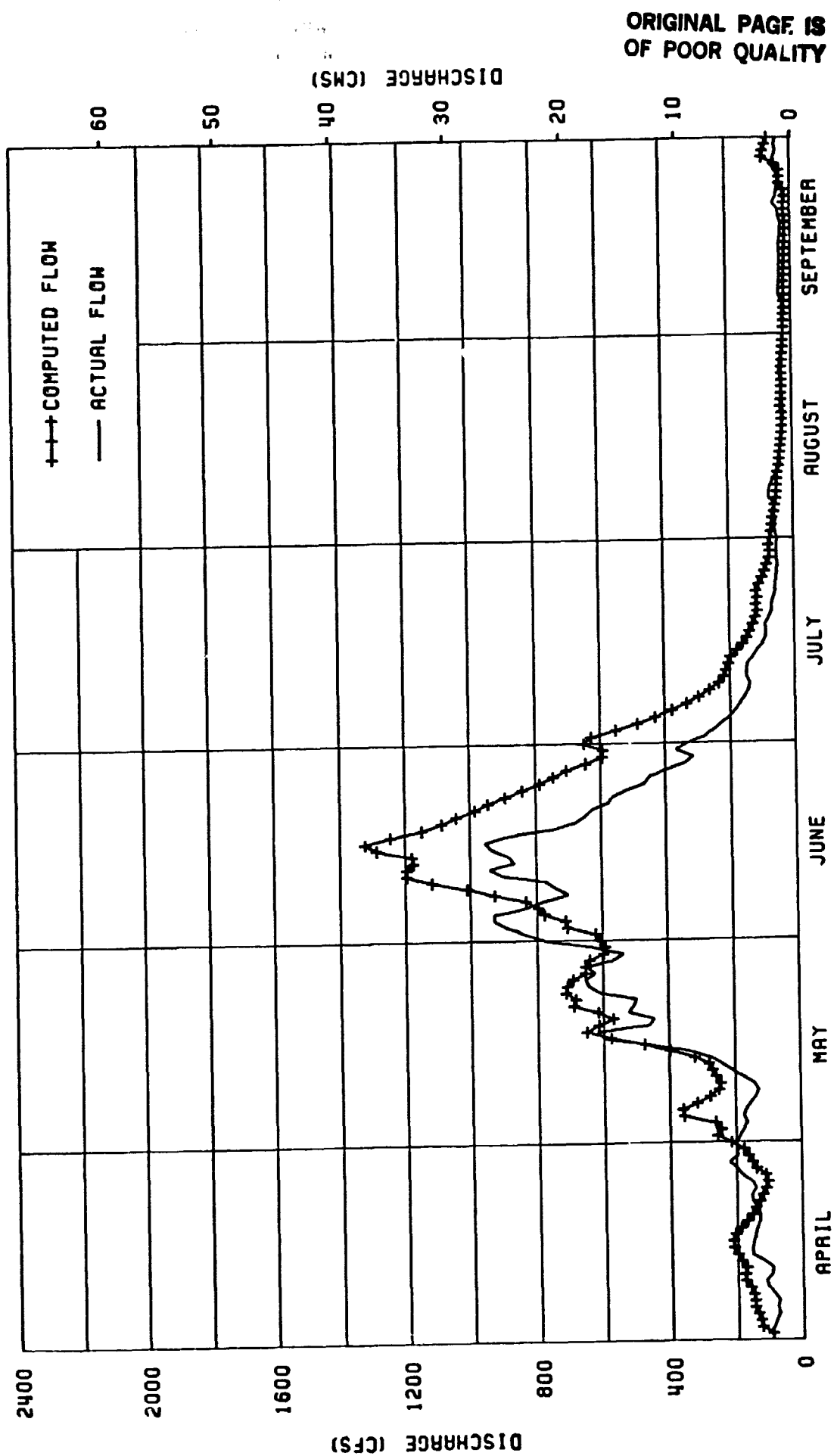


RIO GRANDE RIVER NEAR DEL NORTE, COLORADO, 1973.

MULTIPLE REGRESSION ESTIMATE OF SNOW COVER.

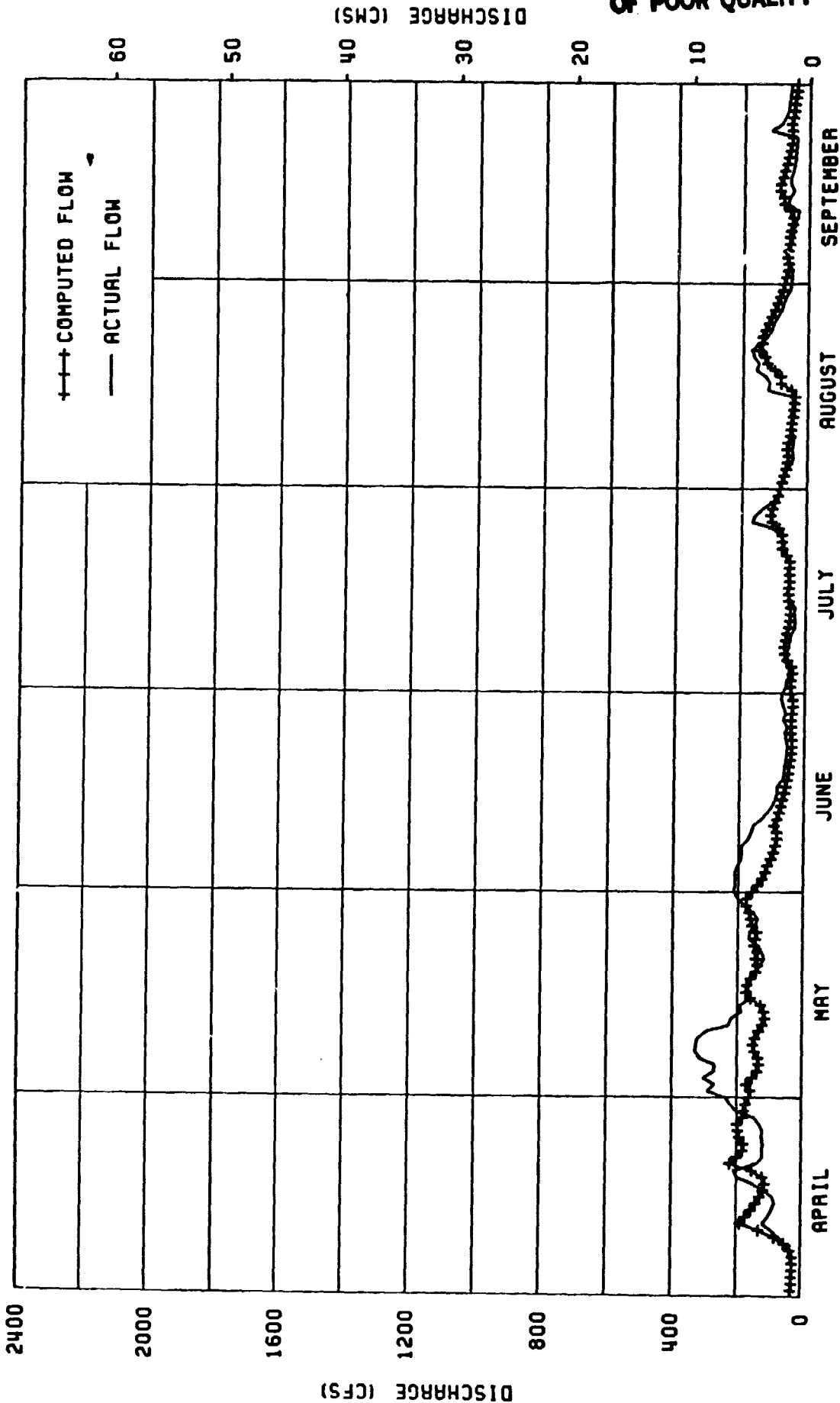


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LINEAR ESTIMATE OF SNOW COVER DATA.

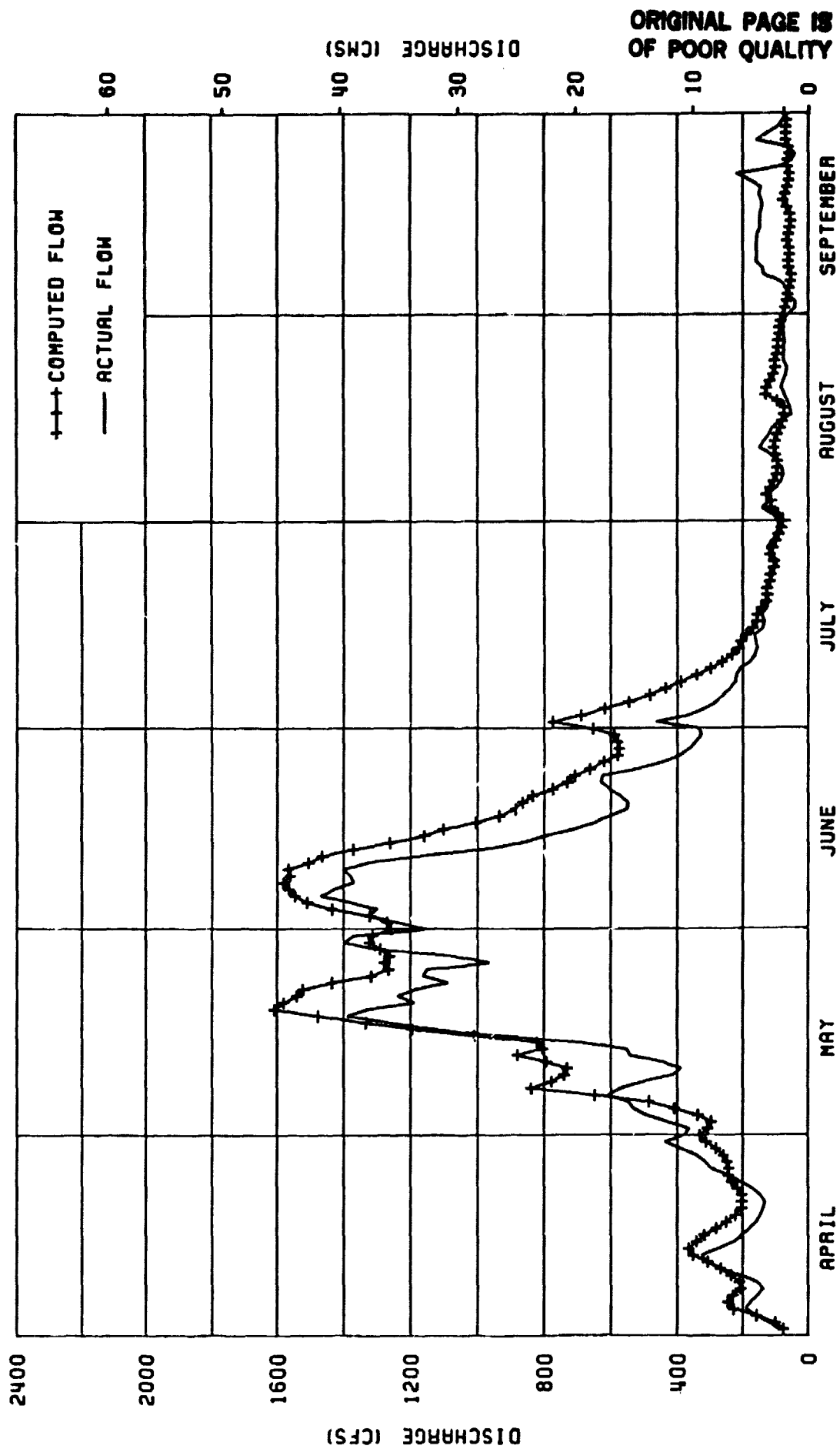


SOUTH FORK OF THE RIO GRANDE RIVER, AT SOUTH FORK, 1978.
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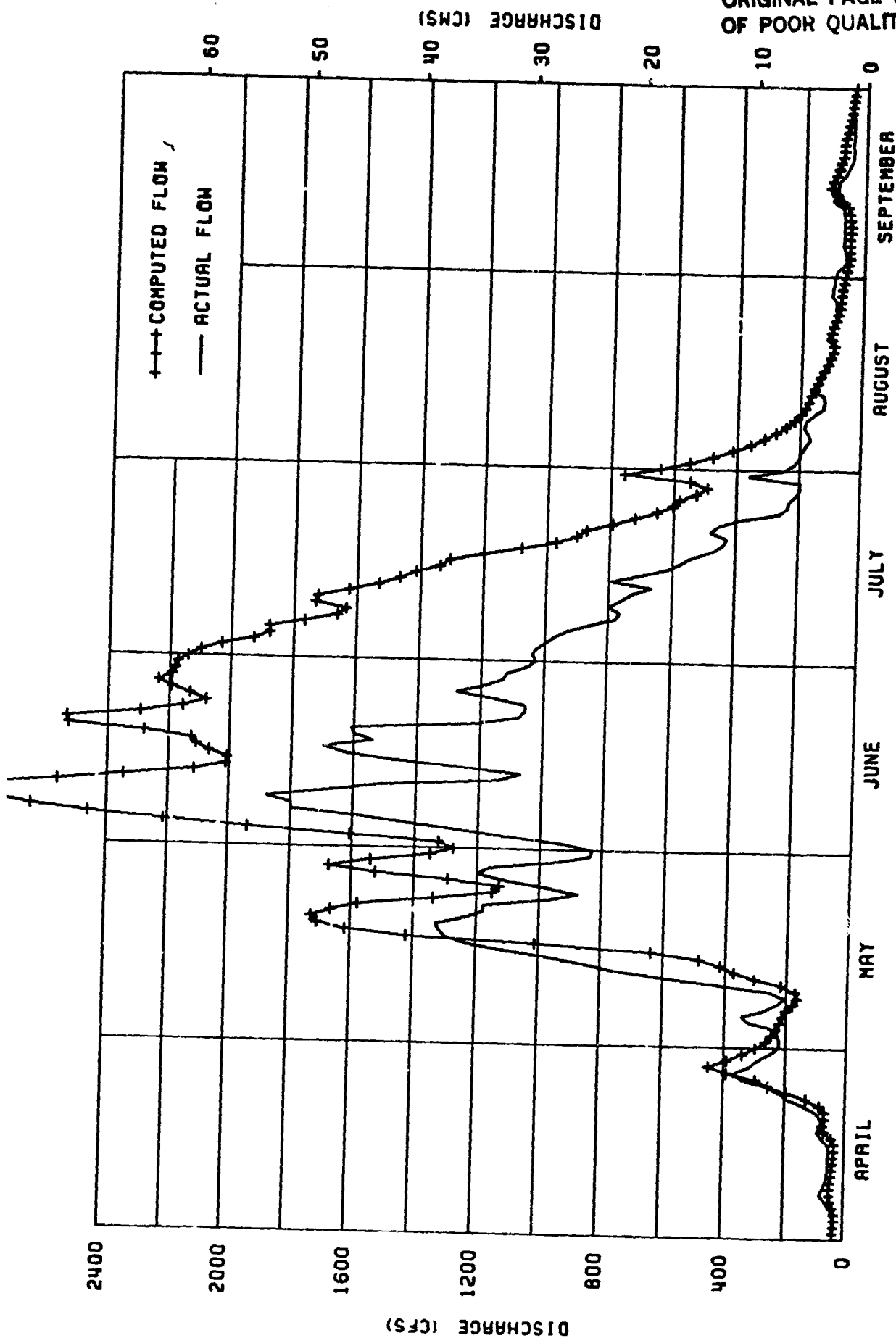
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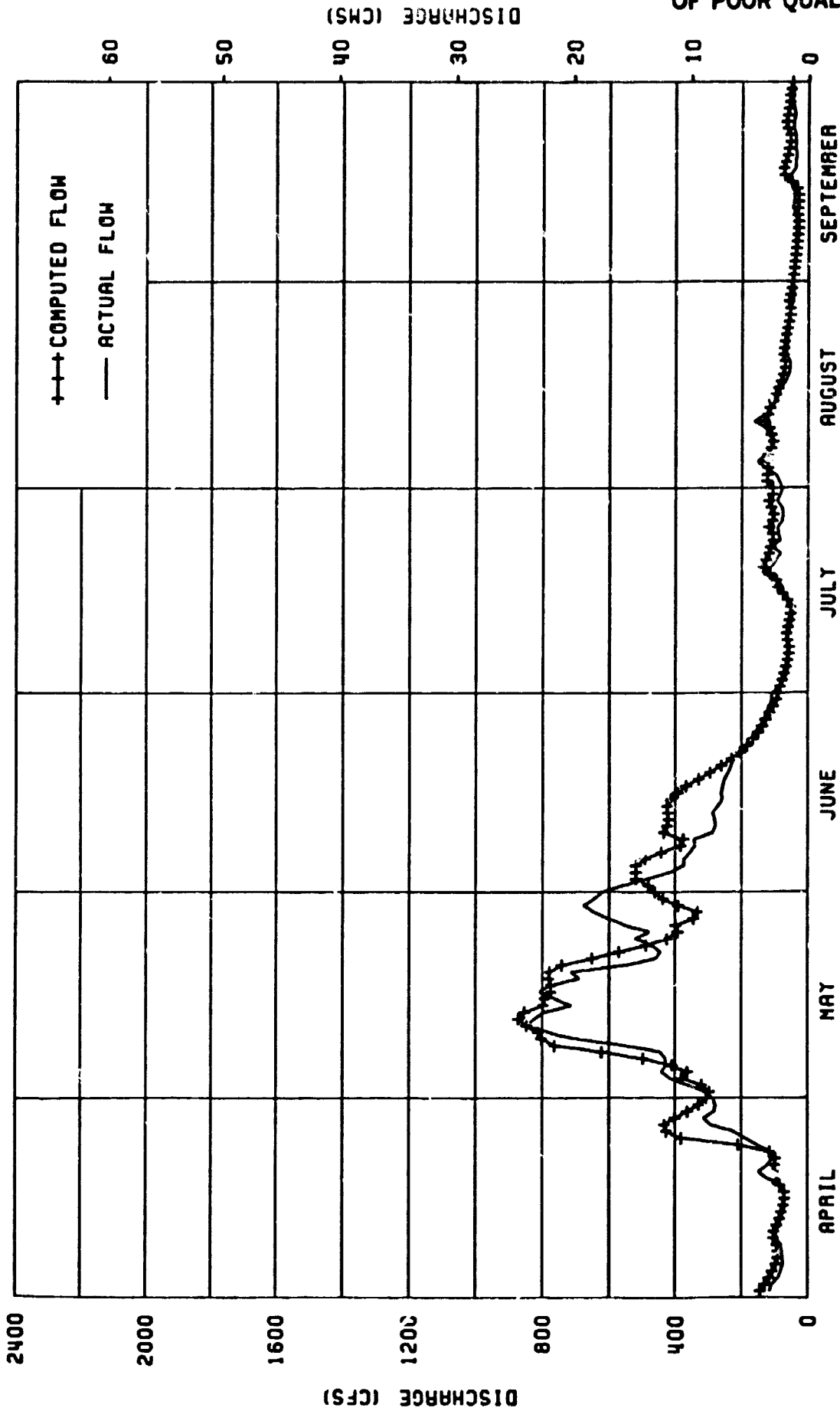


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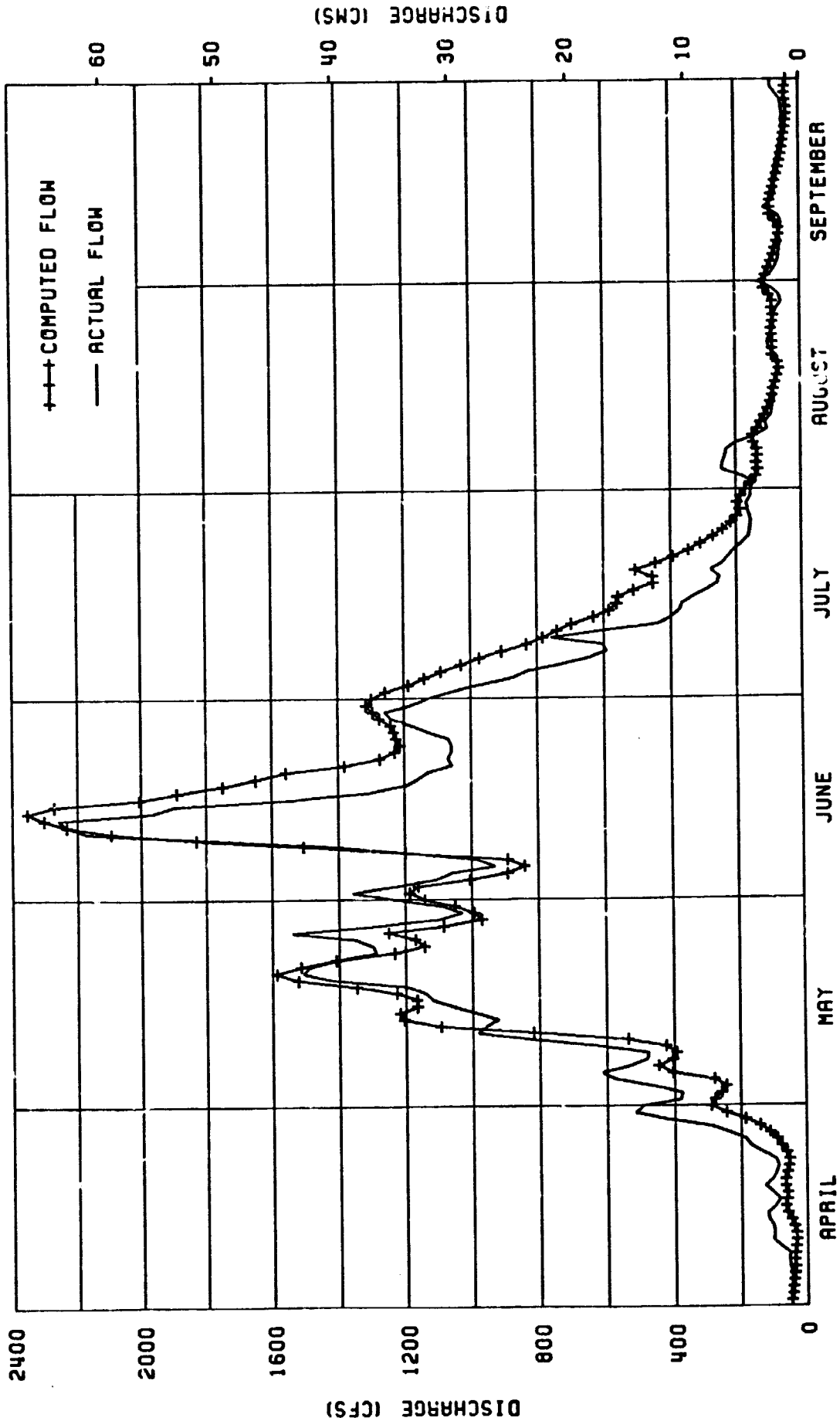
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LINEAR ESTIMATE OF SNOW COVER DATA.

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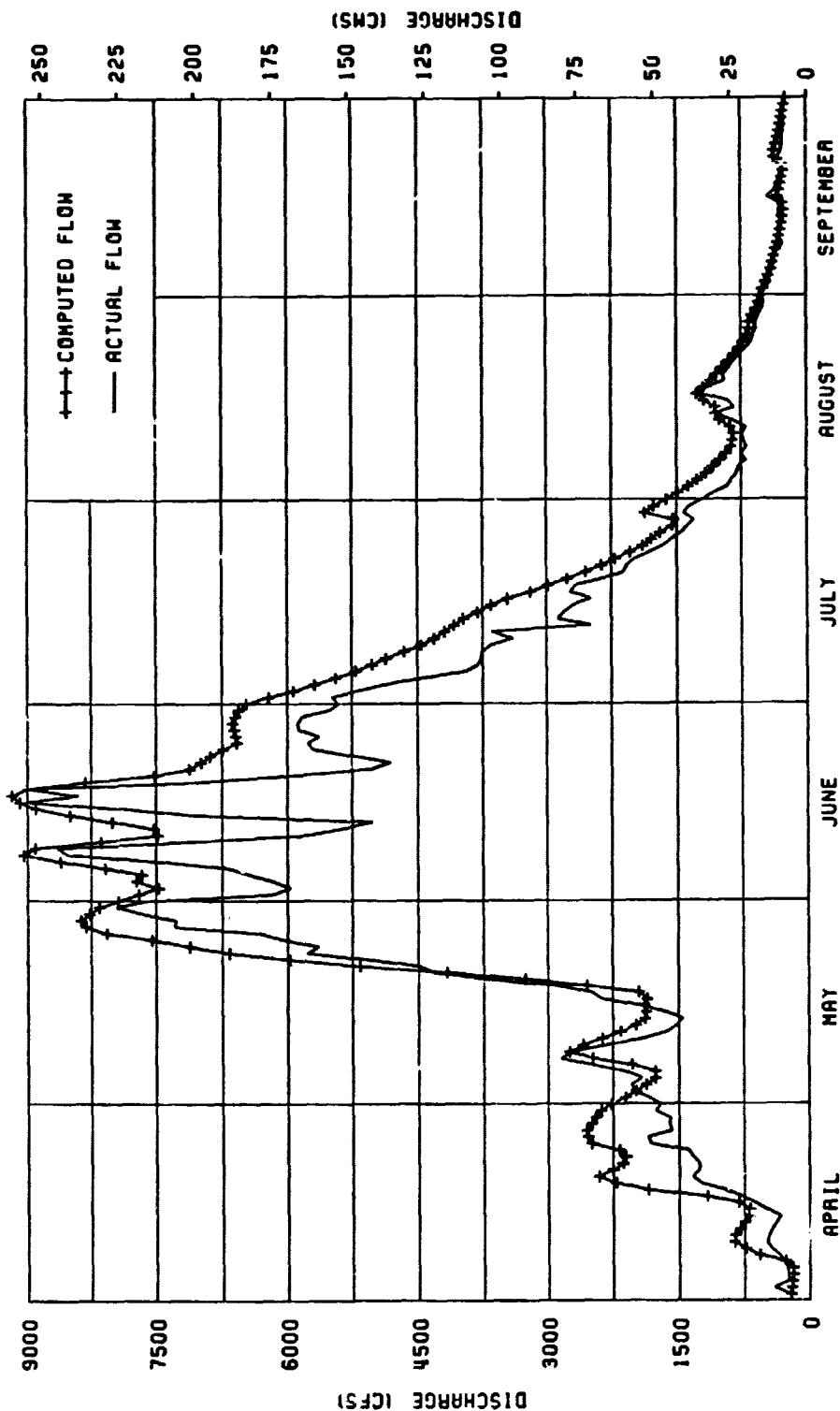
SOUTH FORK OF THE RIO GRANDE RIVER, AT SOUTH FORK, 1974.

LINEAR ESTIMATE OF SNOW COVER DATA.



SOUTH FORK OF THE RIO GRANDE RIVER, AT SOUTH FORK, 1973.
LINEAR ESTIMATE OF SNOW COVER DATA.

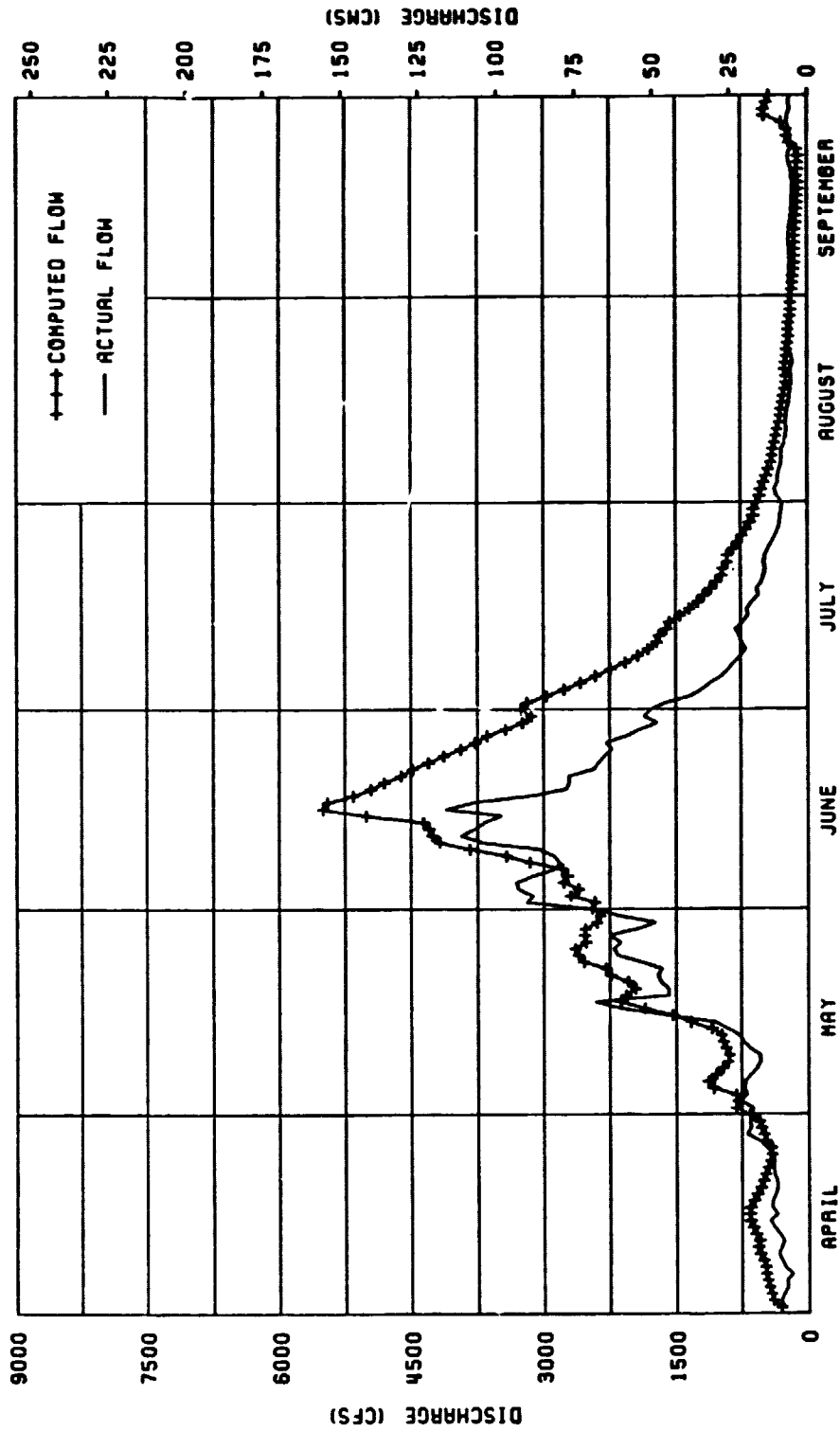
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RIO GRANDE RIVER NEAR DEL NORTE, COLORADO, 1979.

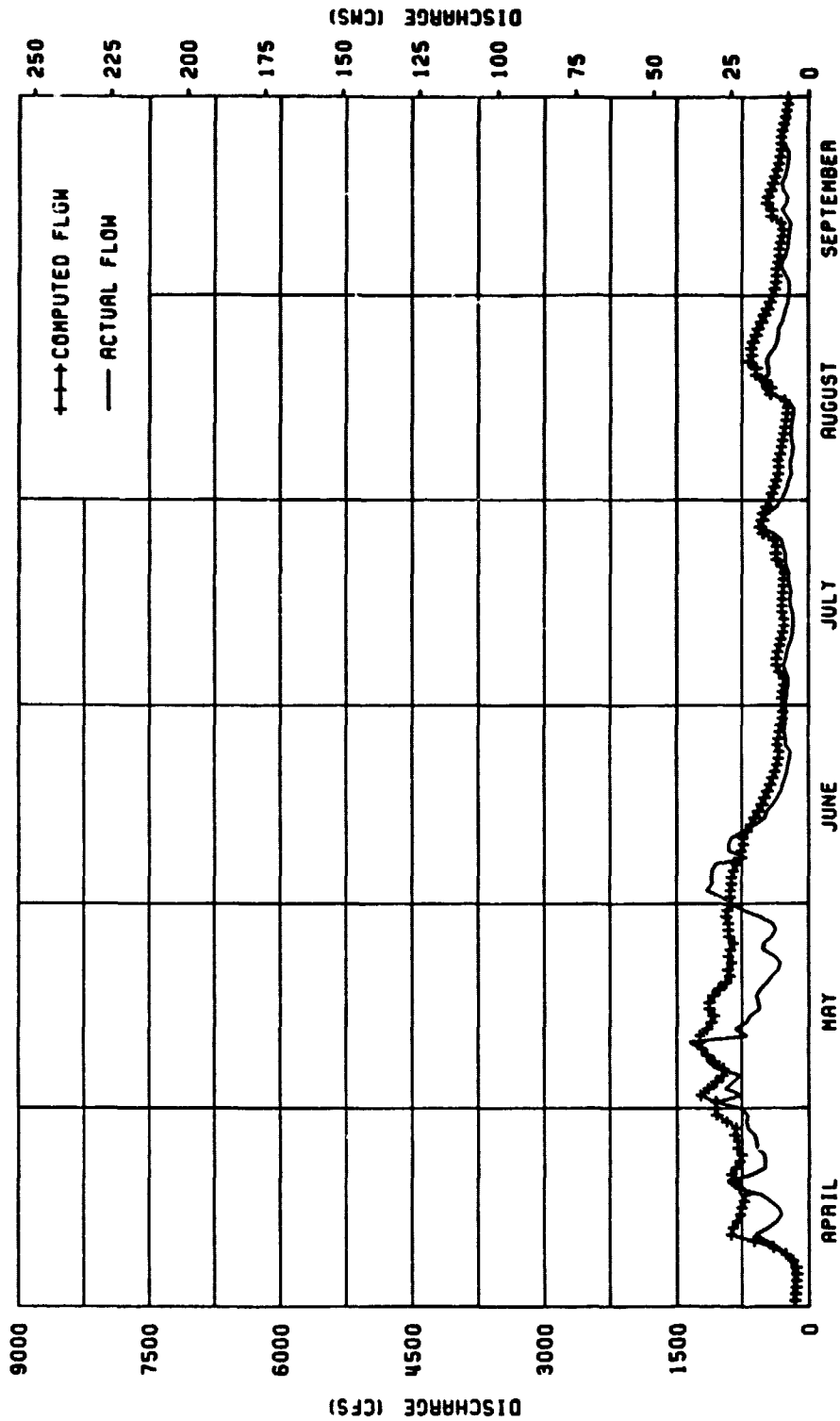
LINEAR ESTIMATE OF SNOW COVER.

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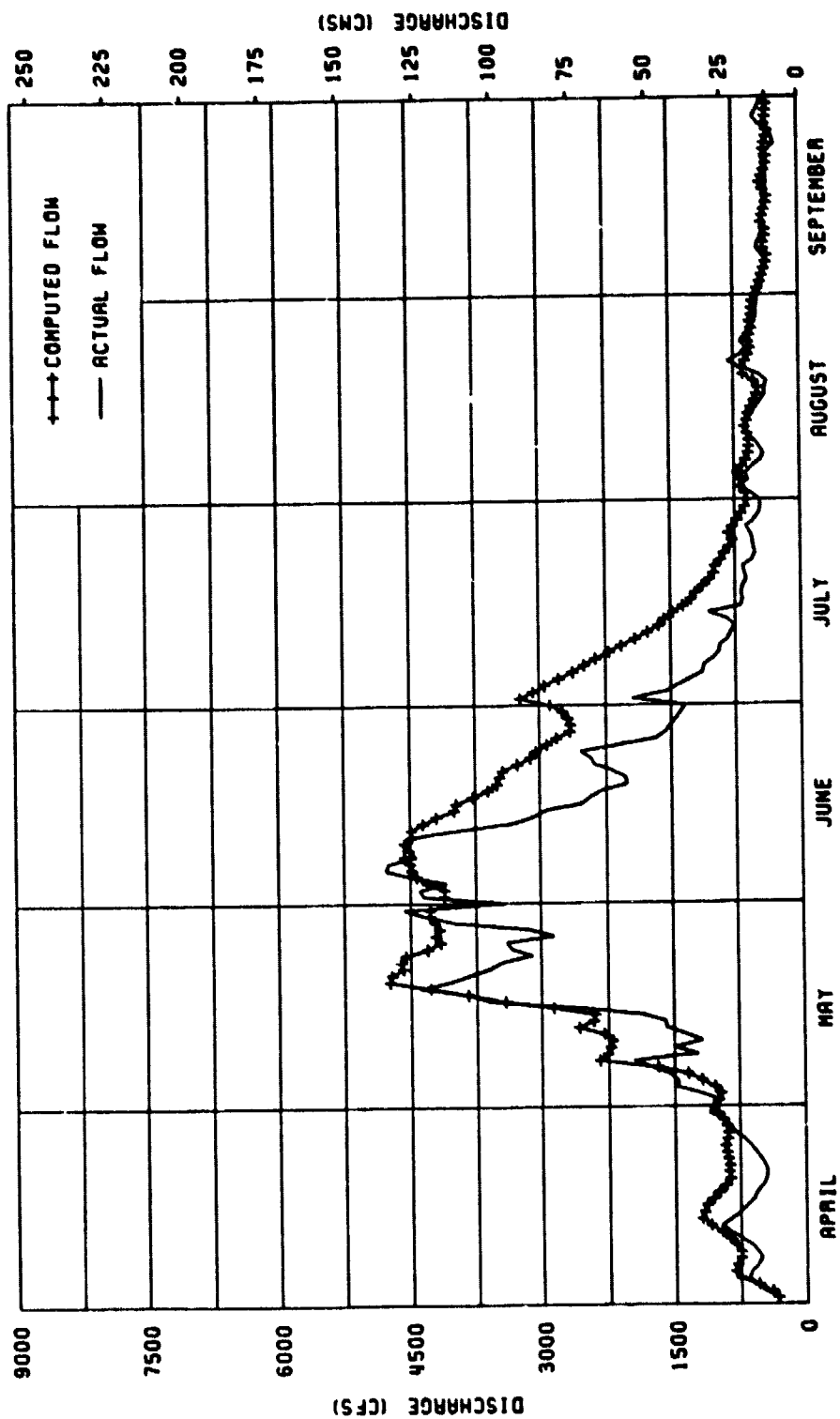
RIO GRANDE RIVER NEAR DEL NORTE, COLORADO, 1978.
LINEAR ESTIMATE OF SNOW COVER.

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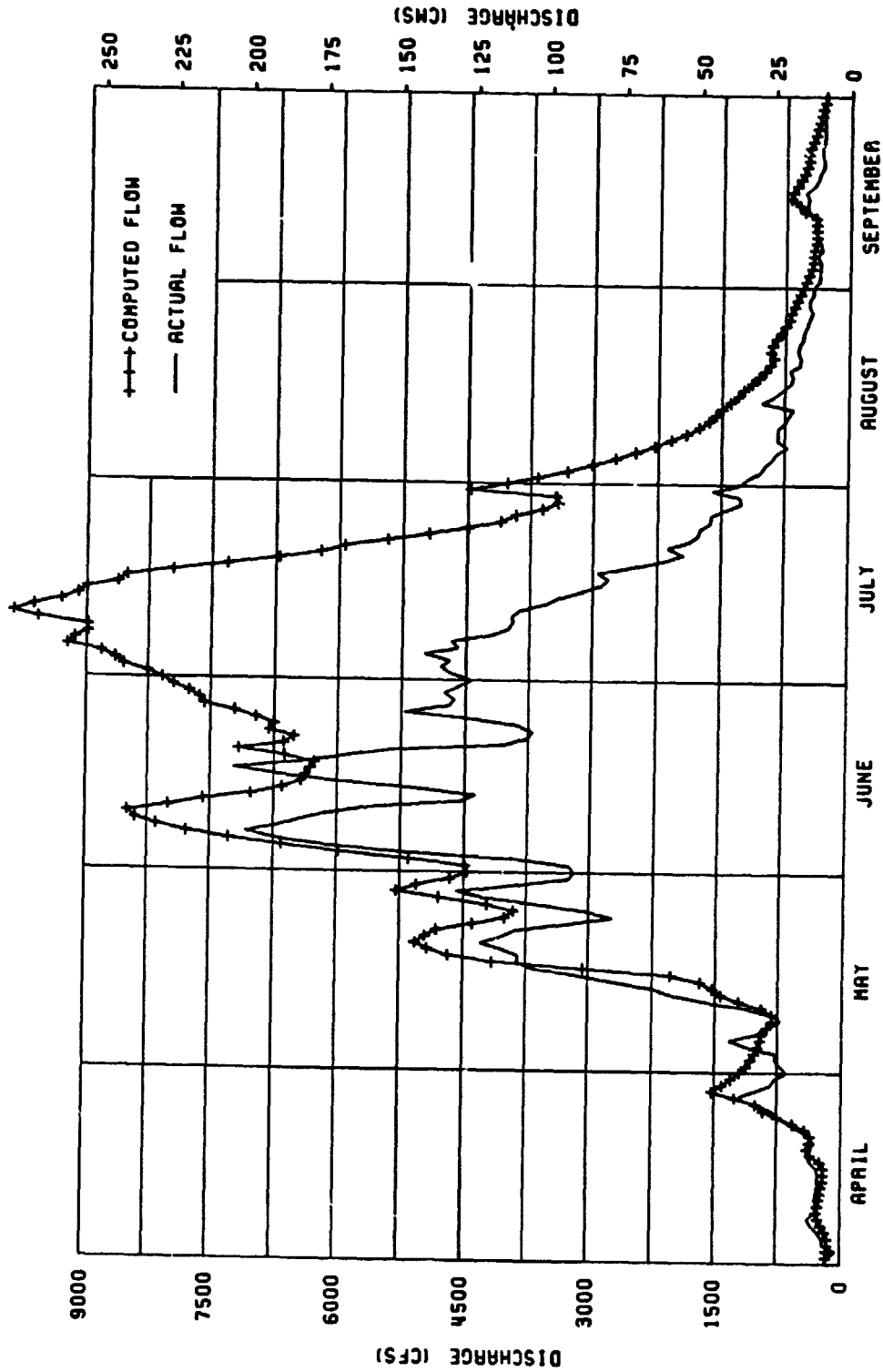
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LINEAR ESTIMATE OF SNOW COVER.

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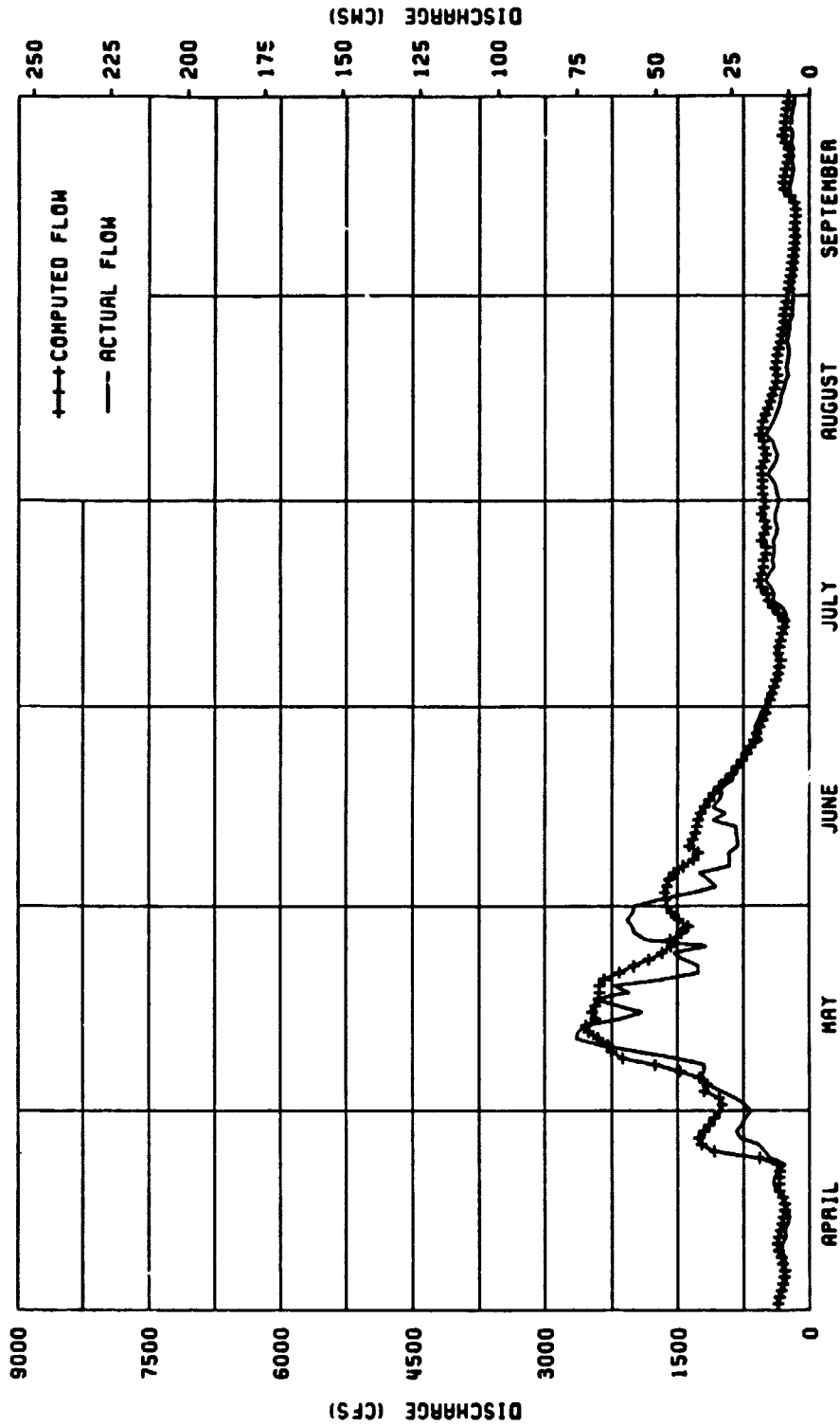
RIO GRANDE RIVER NEAR DEL NORTE, COLORADO, 1976.
LINEAR ESTIMATE OF SNOW COVER.

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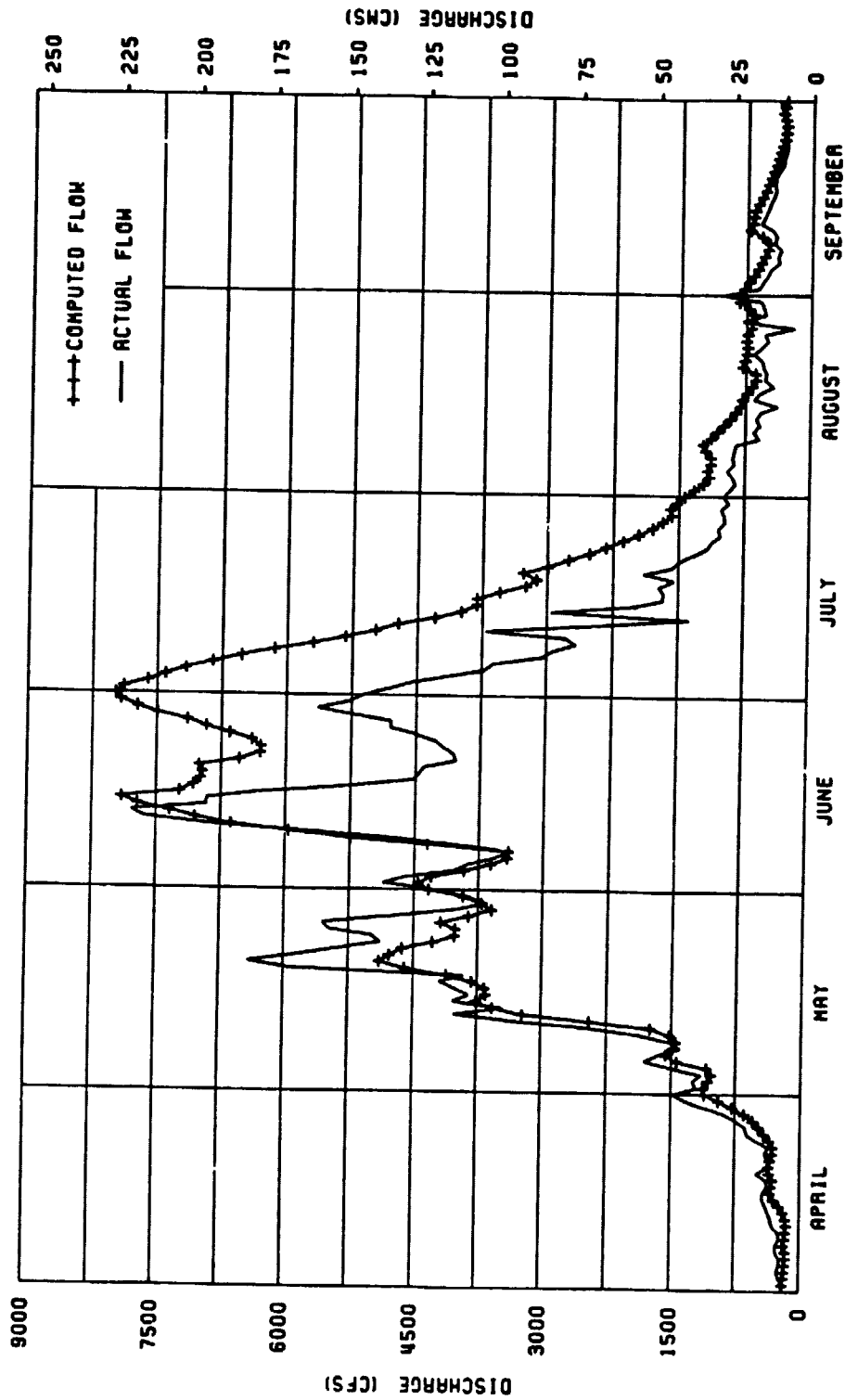
RIO GRANDE RIVER NEAR DEL NORTE, COLORADO. 1975.
LINEAR ESTIMATE OF SNOW COVER.

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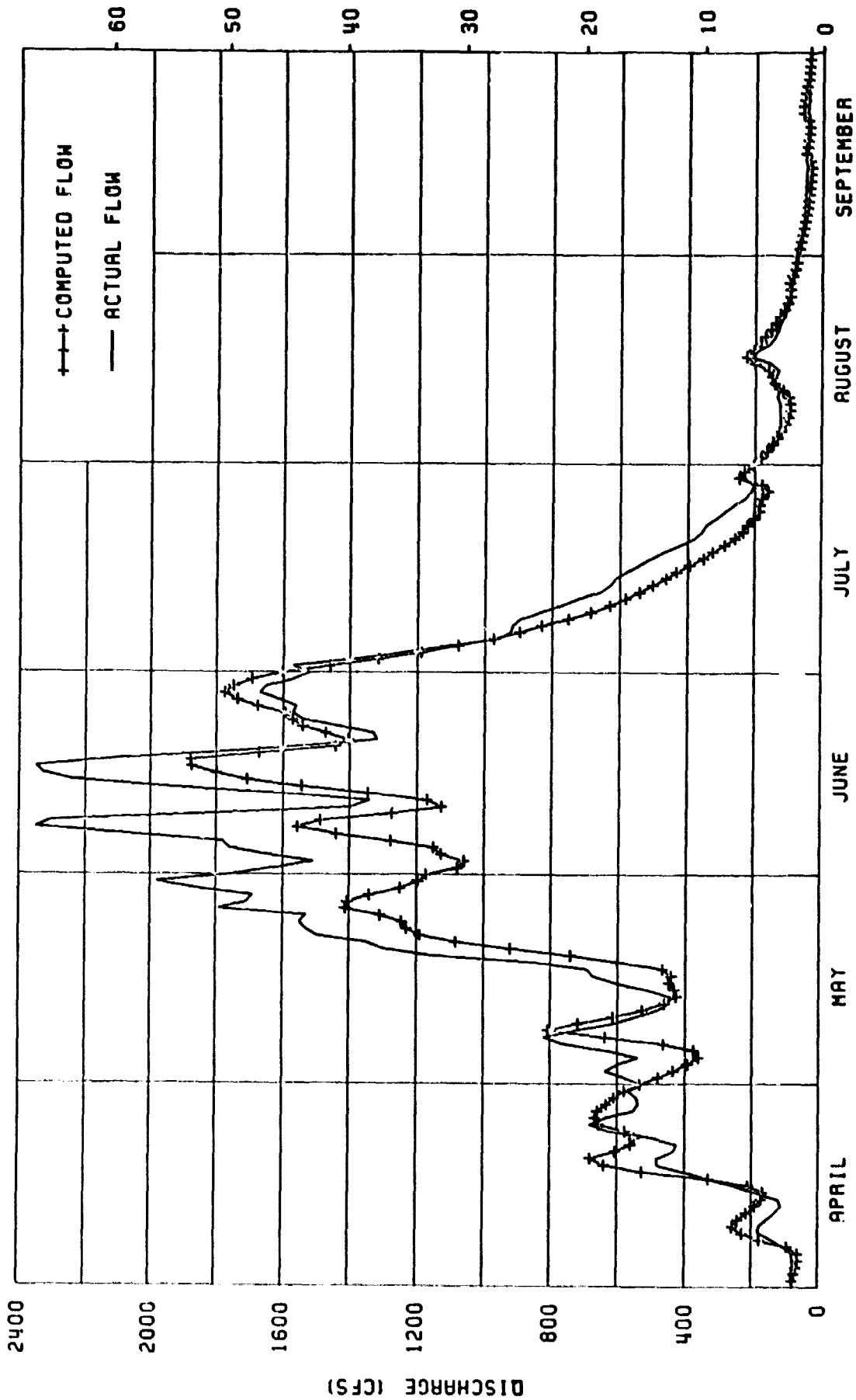


RIO GRANDE RIVER NEAR DEL NORTE, COLORADO, 1974.
LINEAR ESTIMATE OF SNOW COVER.

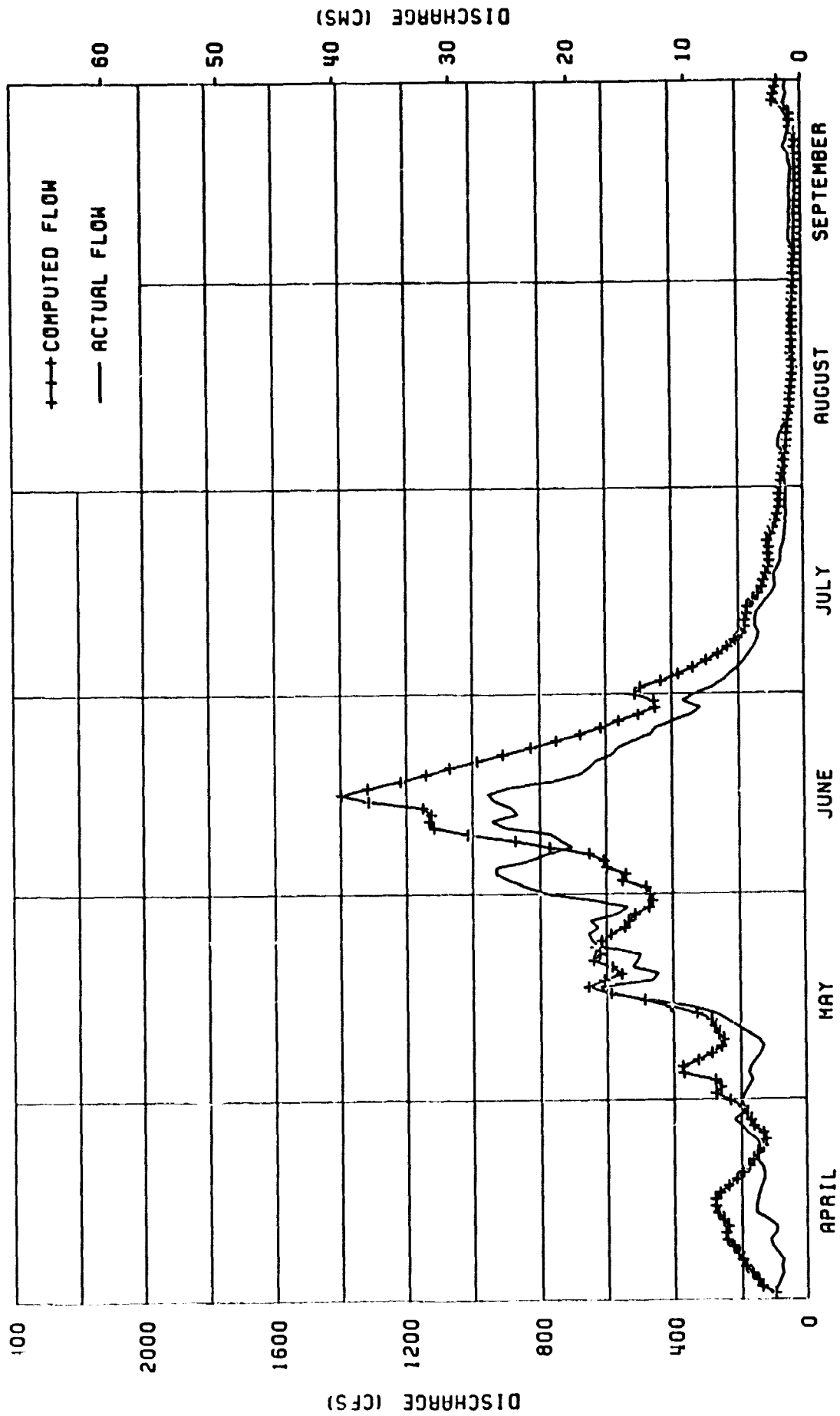
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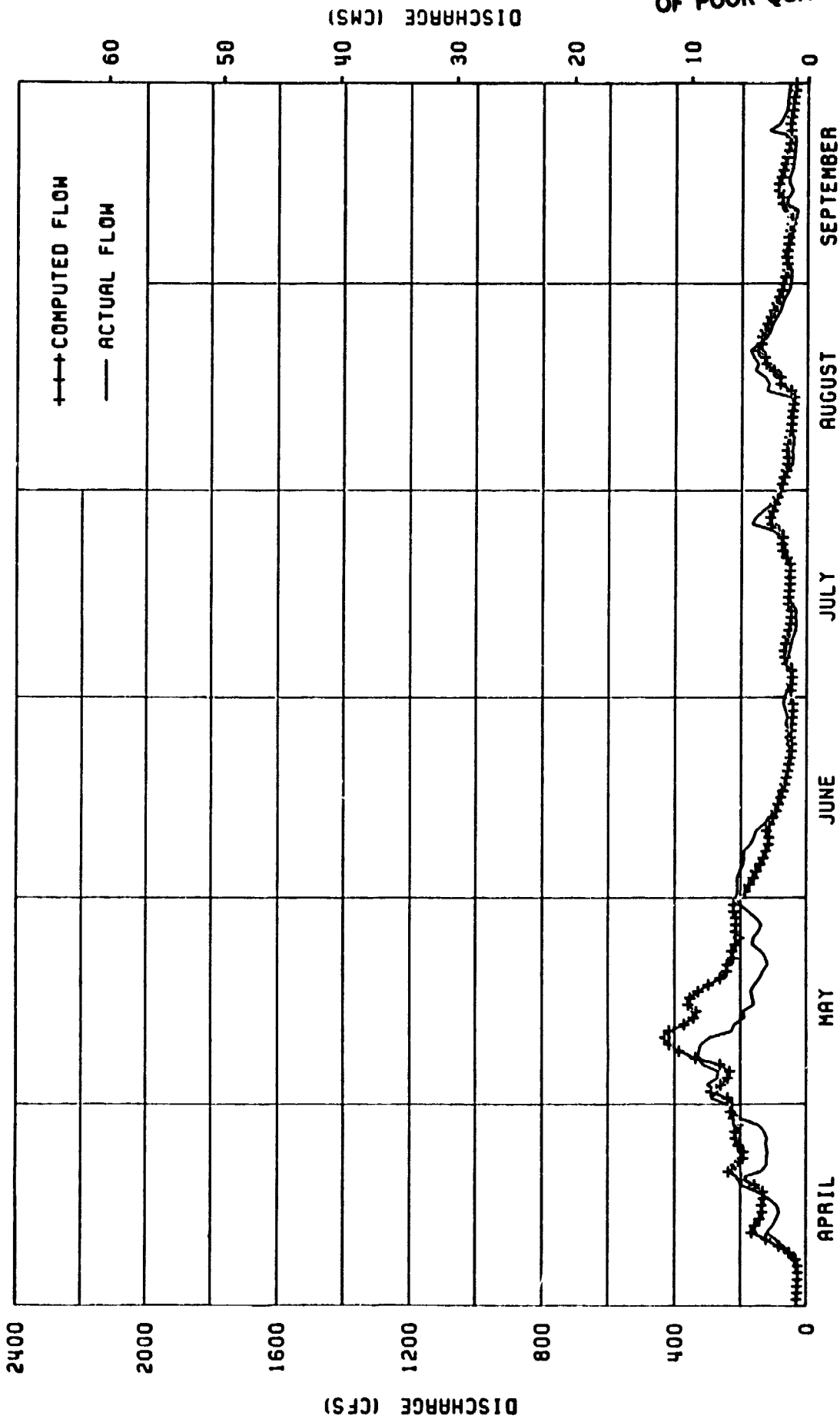
RIO GRANDE RIVER NEAR DEL NORTE, COLORADO, 1973.
LINEAR ESTIMATE OF SNOW COVER.



SOUTH FORK OF THE RIO GRANDE RIVER, AT SOUTH FORK, 1979.
PARABOLIC AND EXPONENTIAL ESTIMATE OF SNOW COVER.

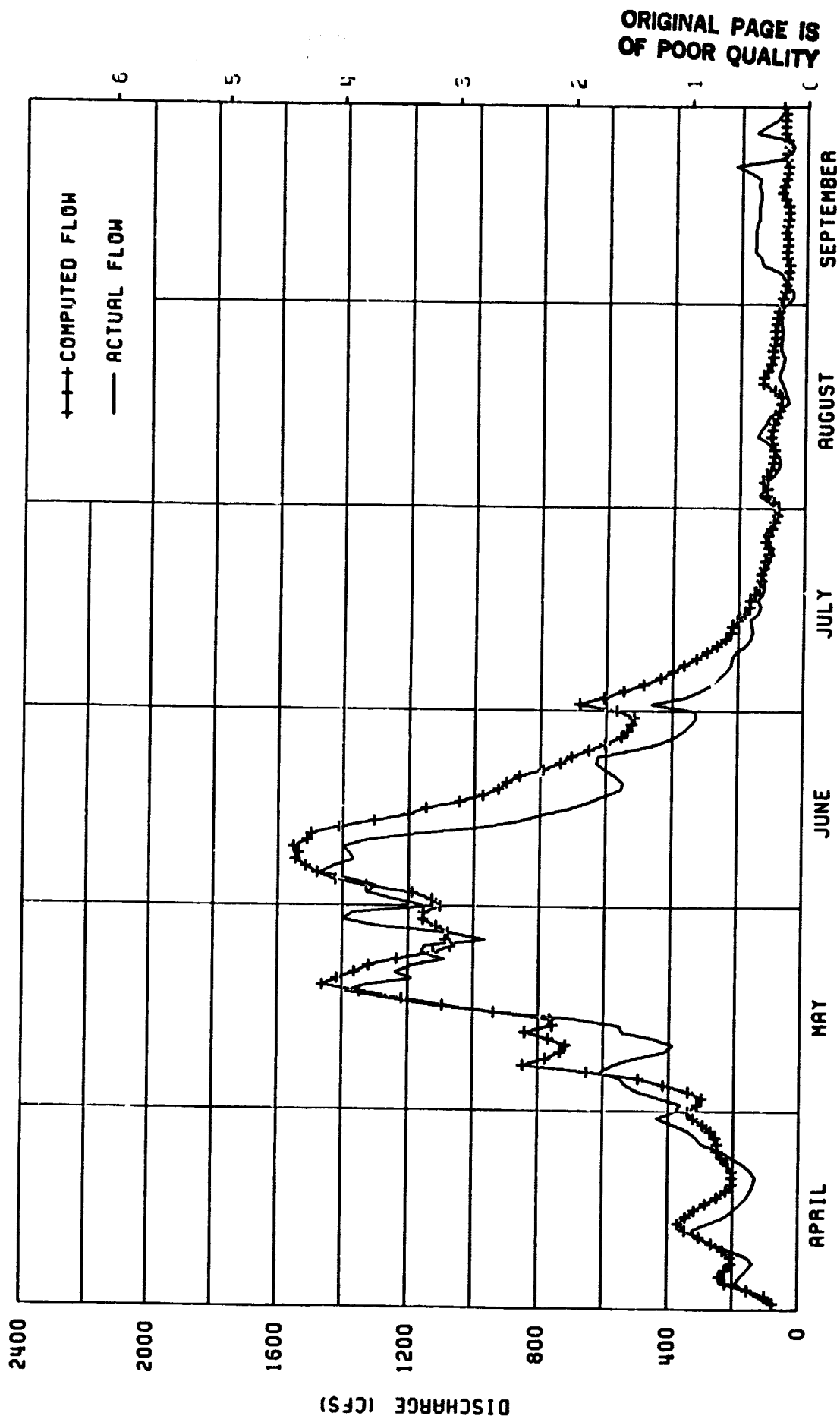


SOUTH FORK OF THE RIO GRANDE RIVER, AT SOUTH FORK, 1978.
PARABOLIC AND EXPONENTIAL ESTIMATE OF SNOW COVER.

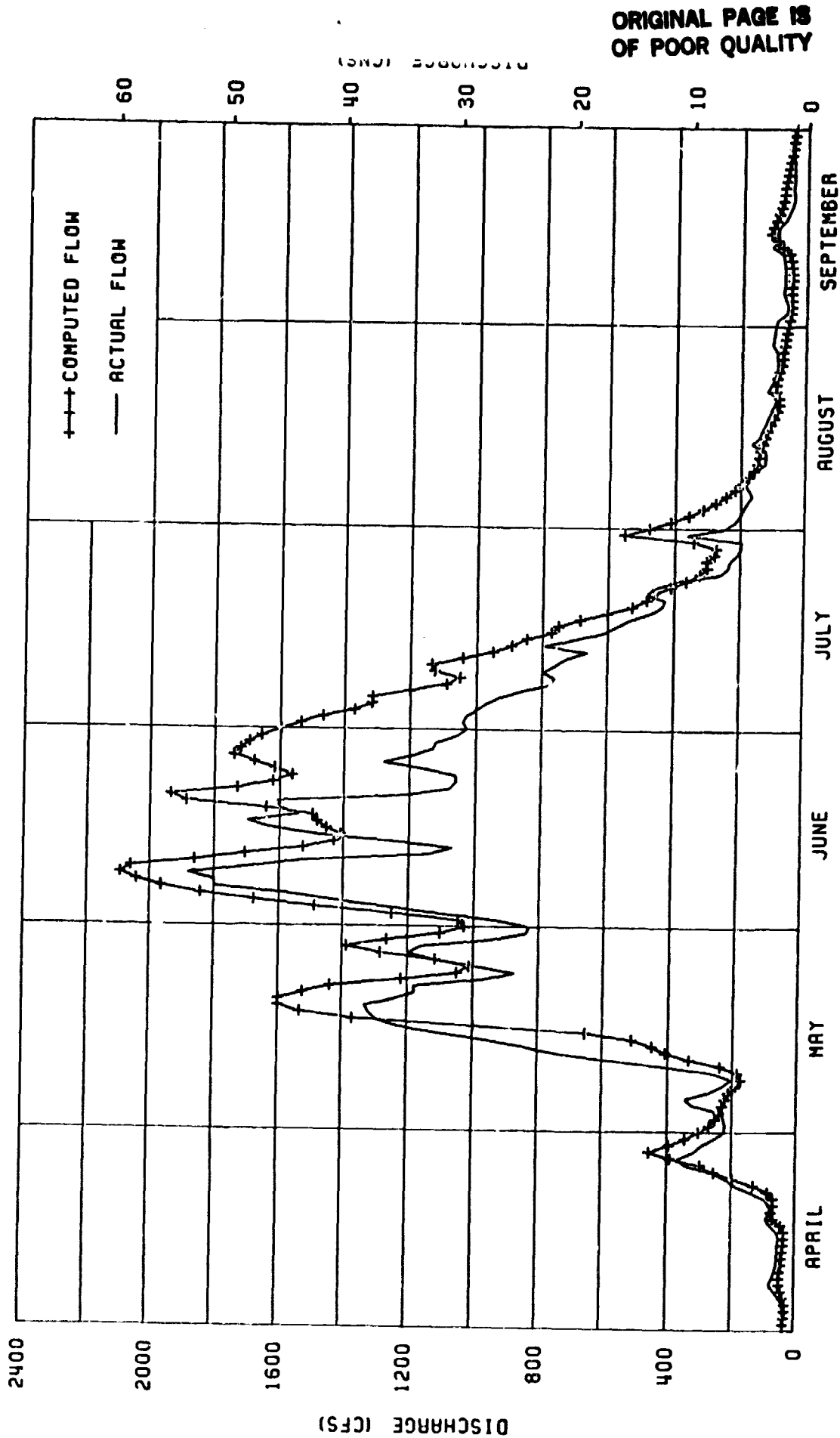


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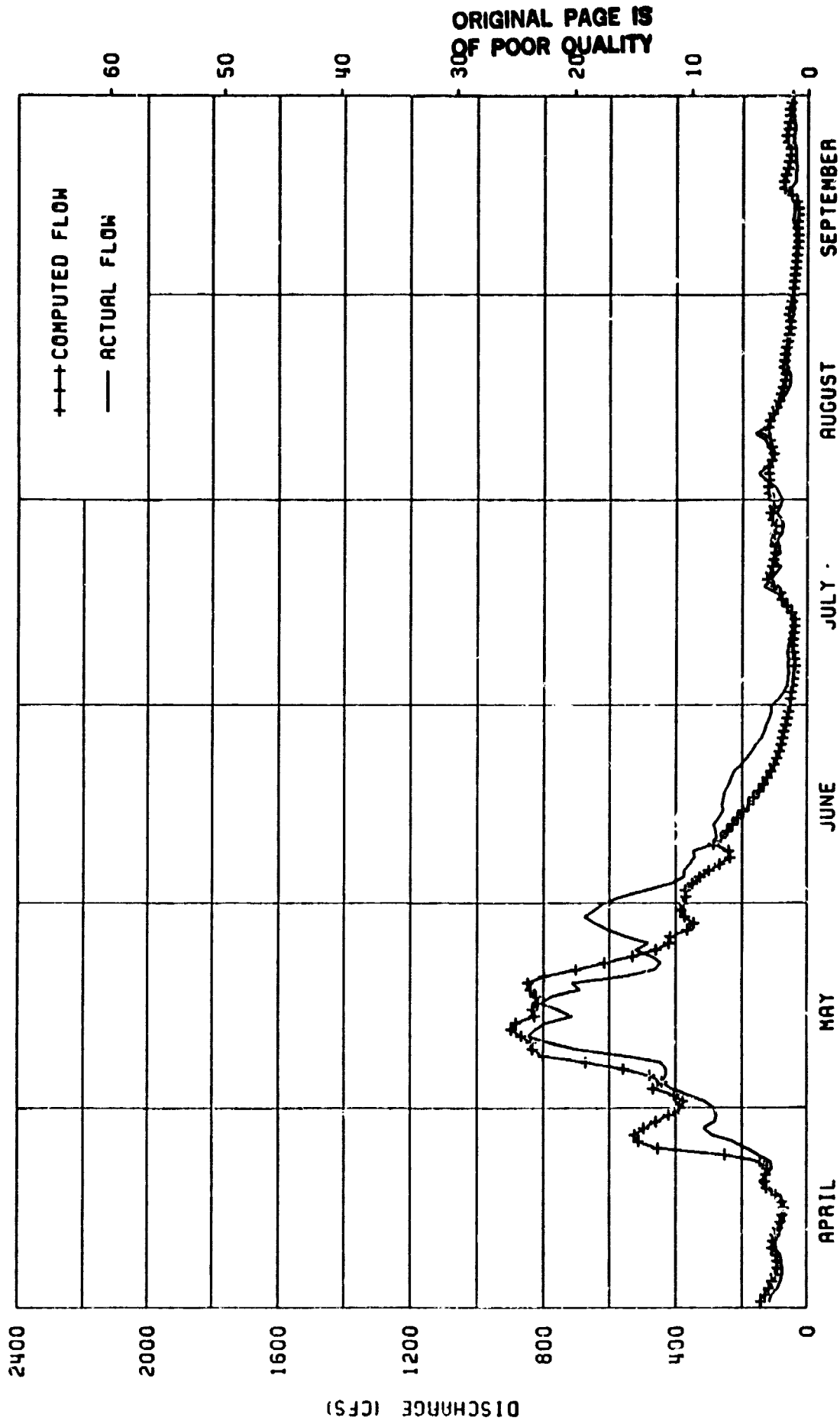
SOUTH FORK OF THE RIO GRANDE RIVER, AT SOUTH FORK, 1977.
PARABOLIC AND EXPONENTIAL ESTIMATE OF SNOW COVER.



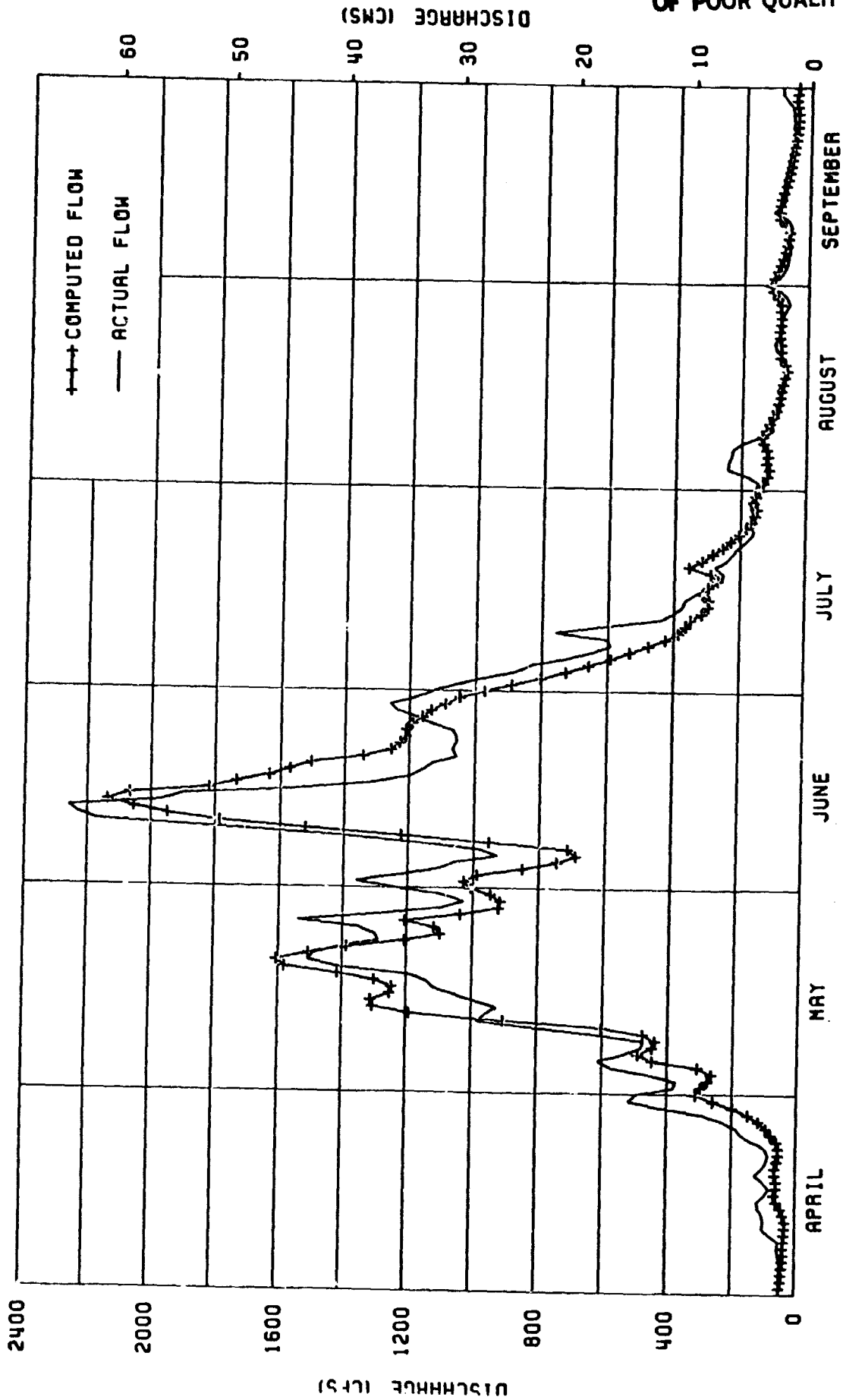
SOUTH FORK OF THE RIO GRANDE RIVER, AT SOUTH FORK, 1976.
PARABOLIC AND EXPONENTIAL ESTIMATE OF SNOW COVER.



SOUTH FORK OF THE RIO GRANDE RIVER, AT SOUTH FORK, 1975.
PARABOLIC AND EXPONENTIAL ESTIMATE OF SNOW COVER.

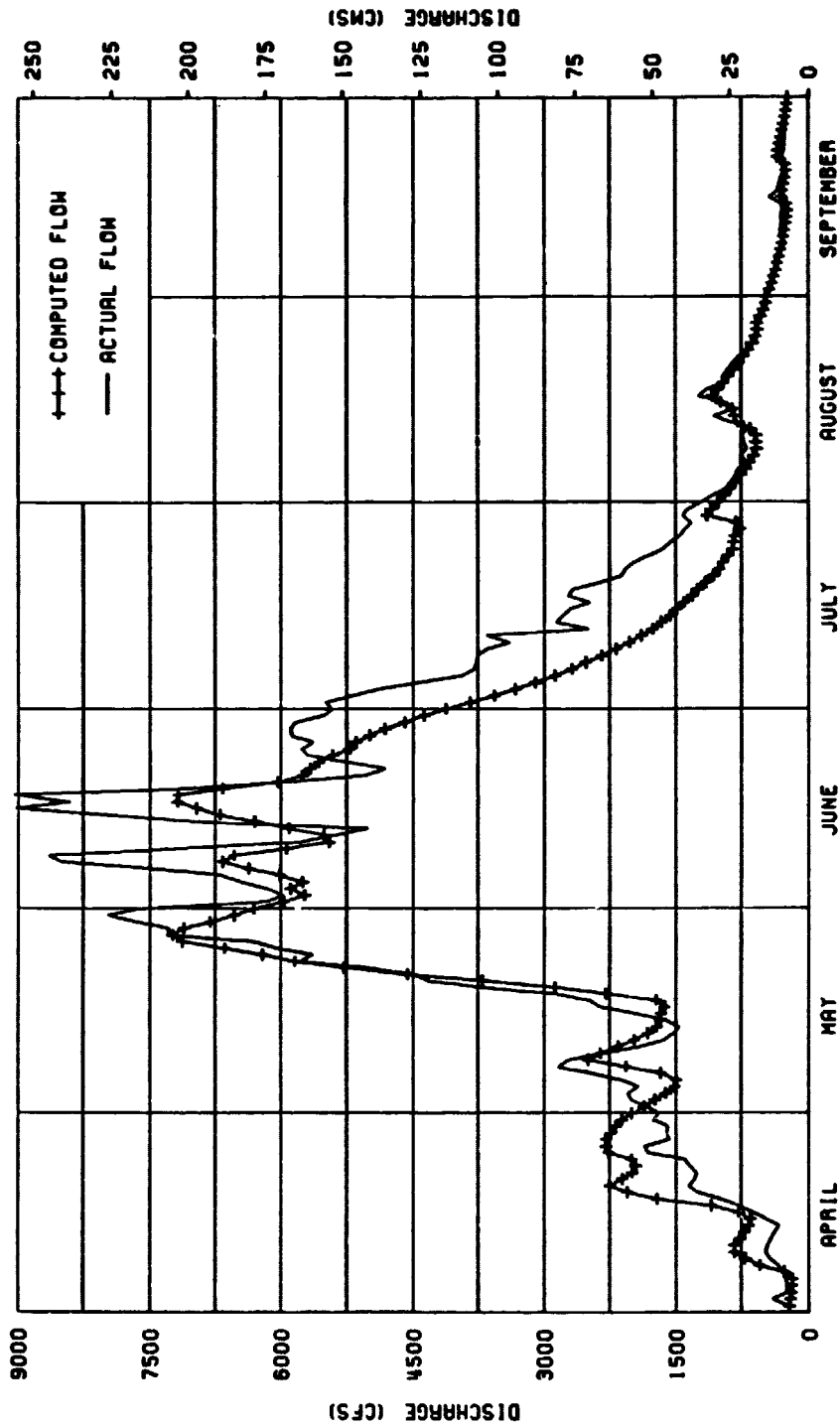


SOUTH FORK OF THE RIO GRANDE RIVER, AT SOUTH FORK, 1974.
PARABOLIC AND EXPONENTIAL ESTIMATE OF SNOW COVER.



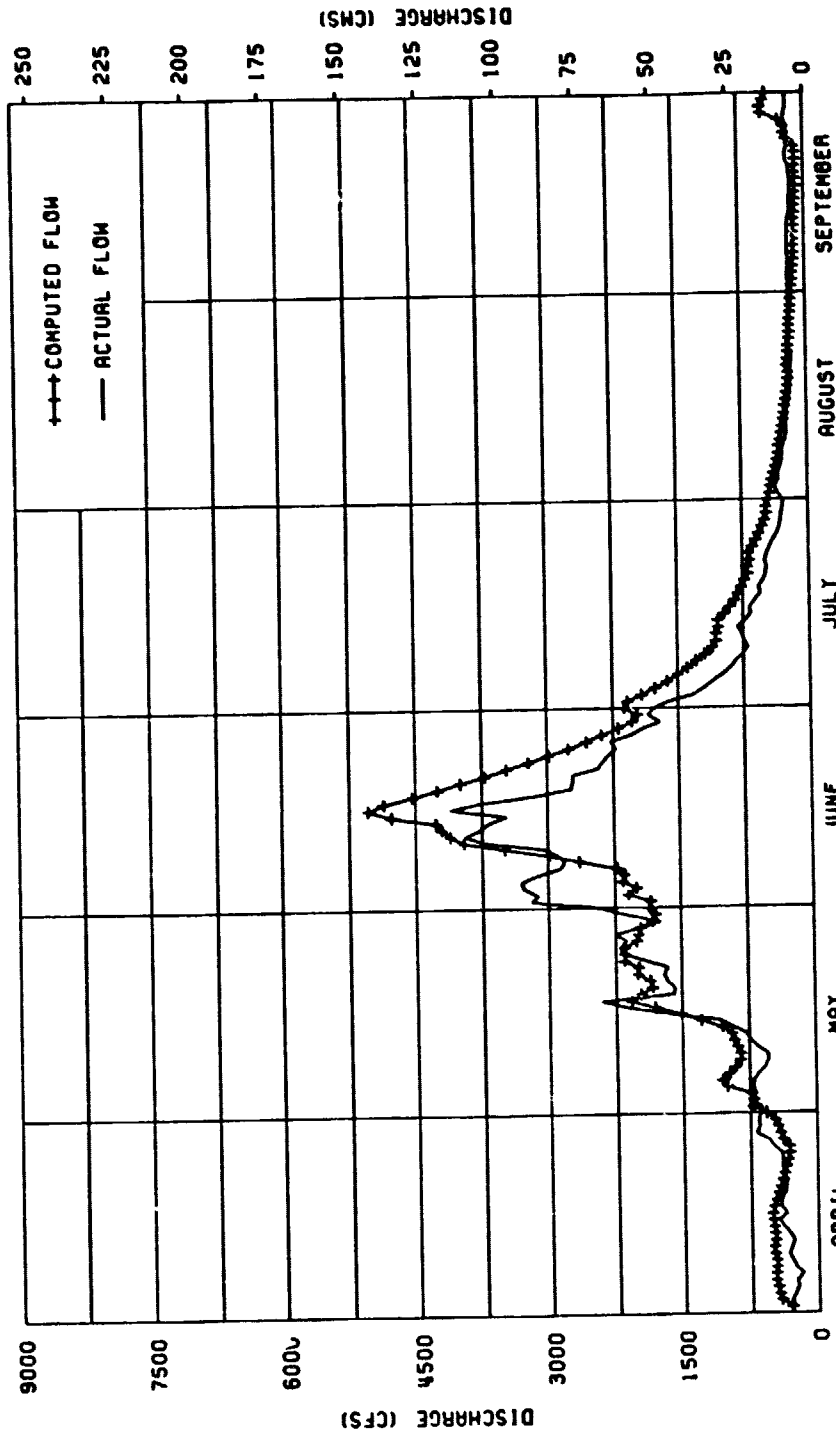
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PARABOLIC AND EXPONENTIAL ESTIMATE OF SNOW COVER.

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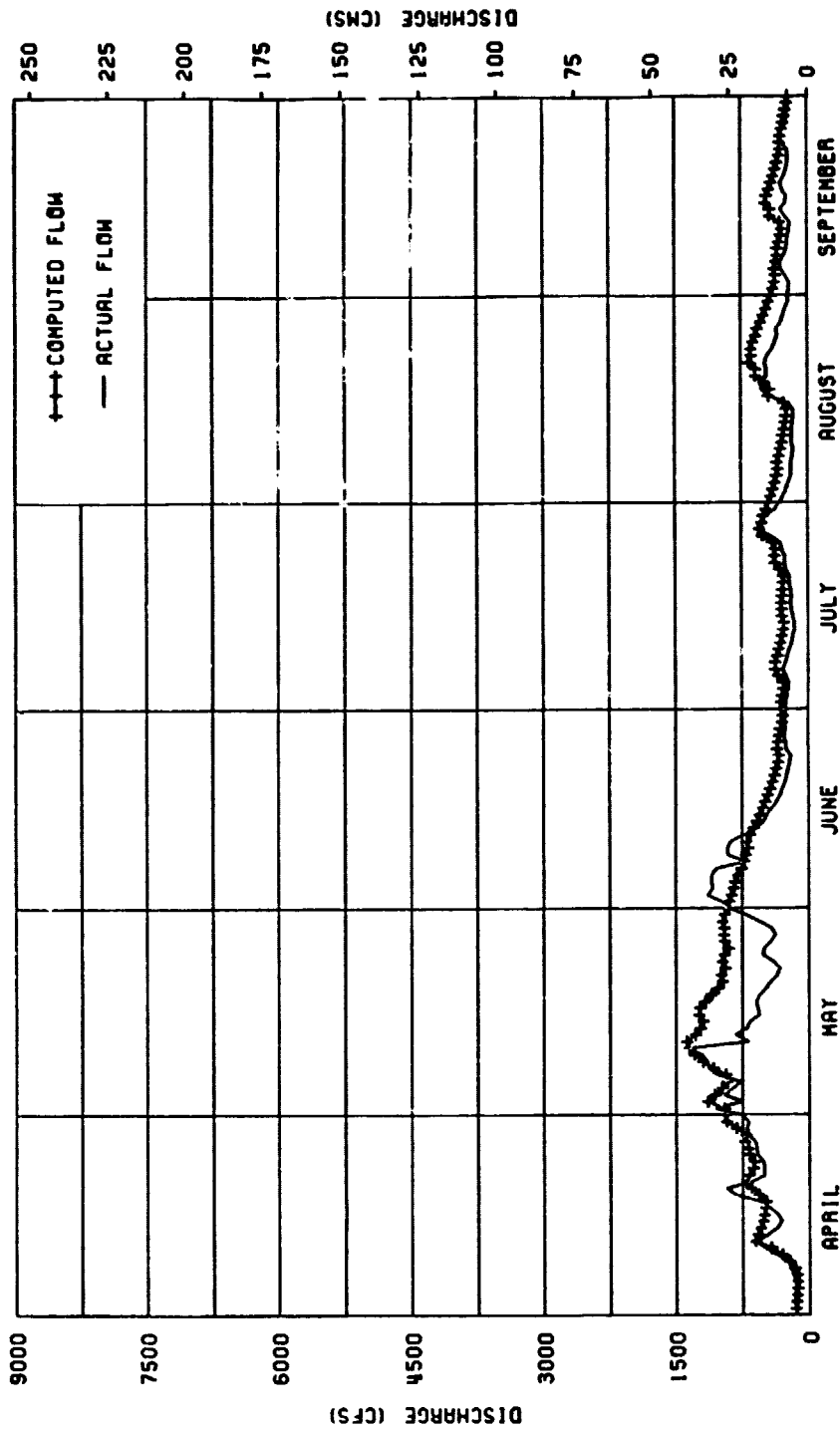
RIO GRANDE RIVER NEAR DEL NORTE, COLORADO, 1979.
PARBOLIC AND EXPONENTIAL ESTIMATE OF SNOW COVER.

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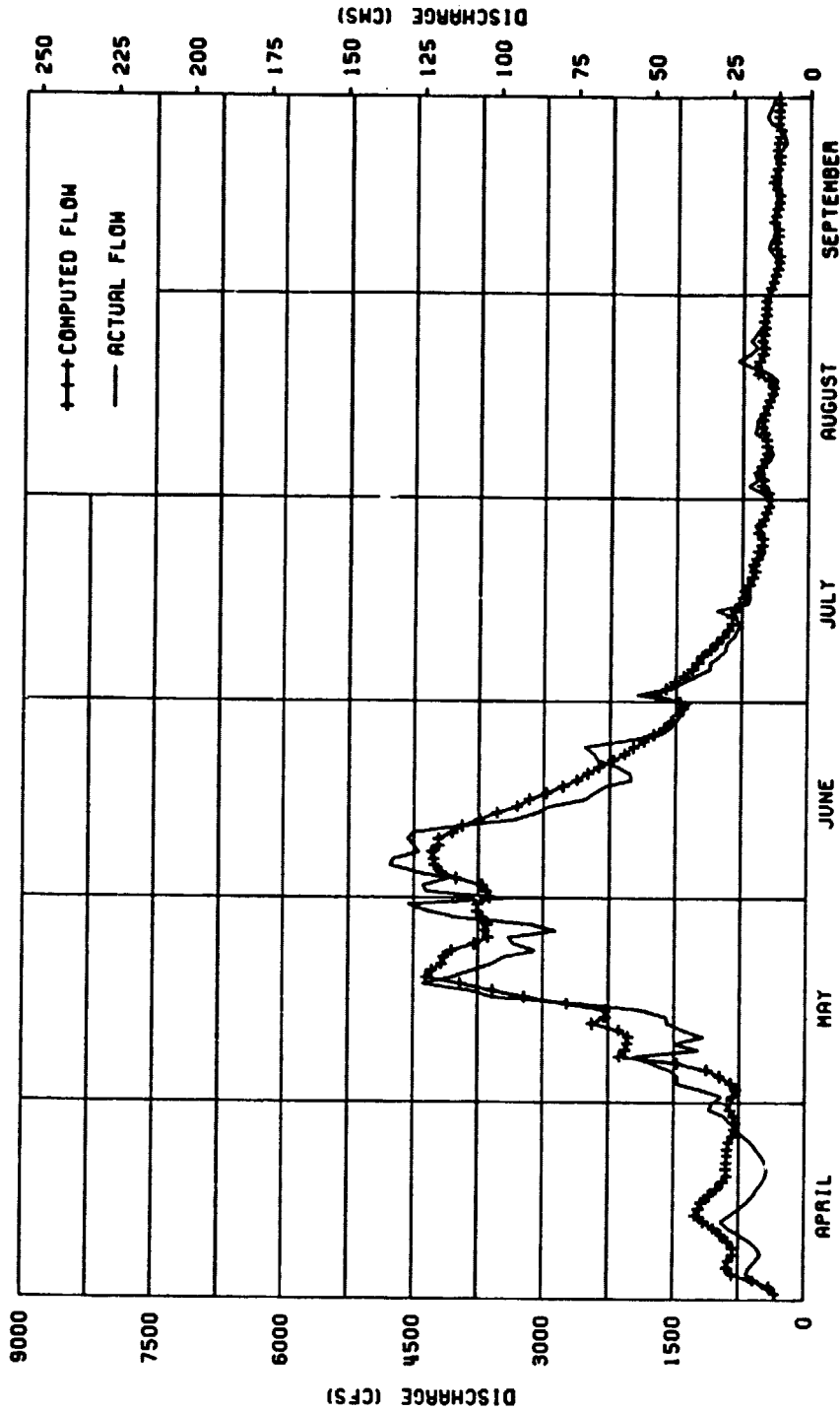
RIO GRANDE RIVER NEAR DEL NORTE, COLORADO, 1978.
PARBOLIC AND EXPONENTIAL ESTIMATE OF SNOW COVER.

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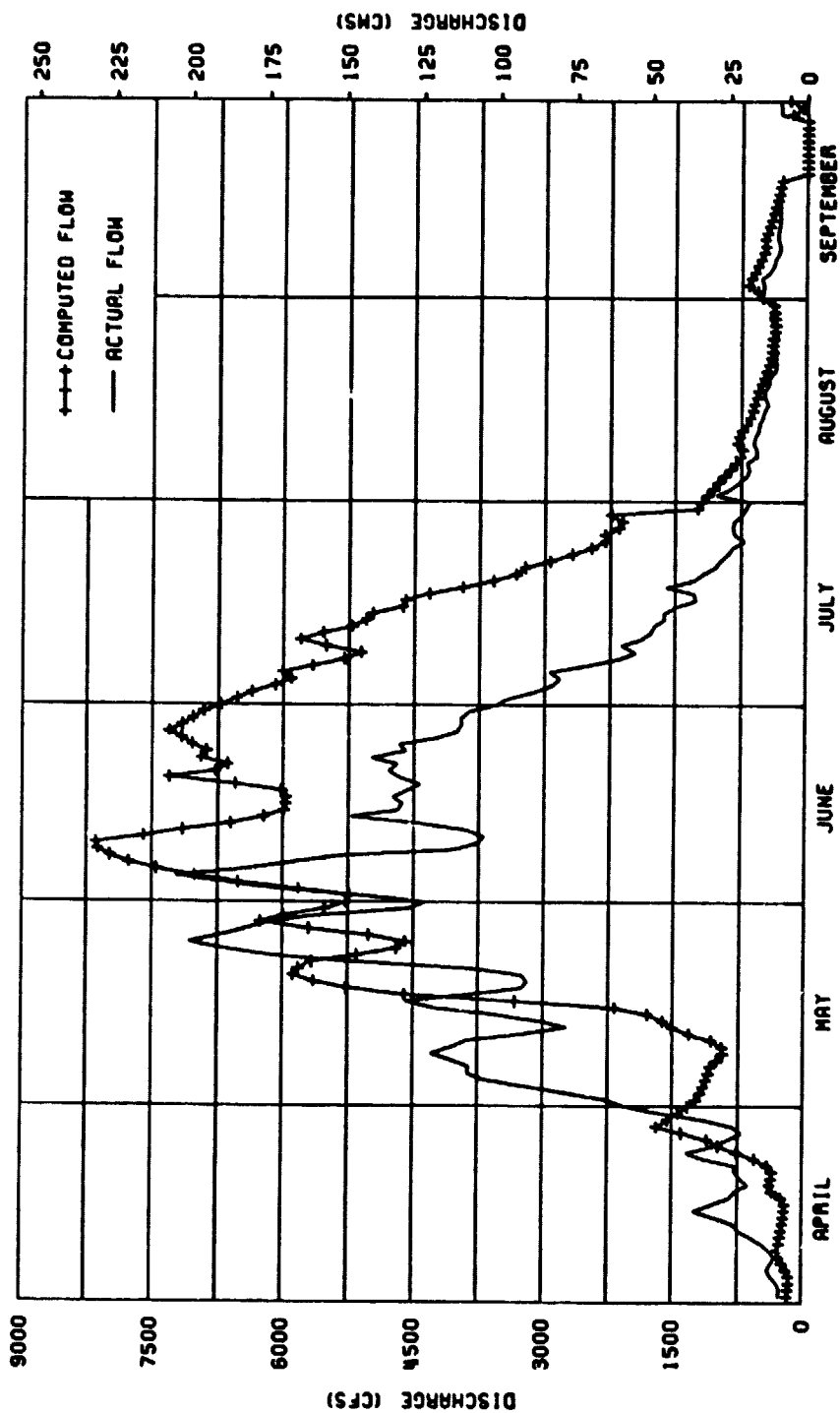
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PARBOLIC AND EXPONENTIAL ESTIMATE OF SNOW COVER.

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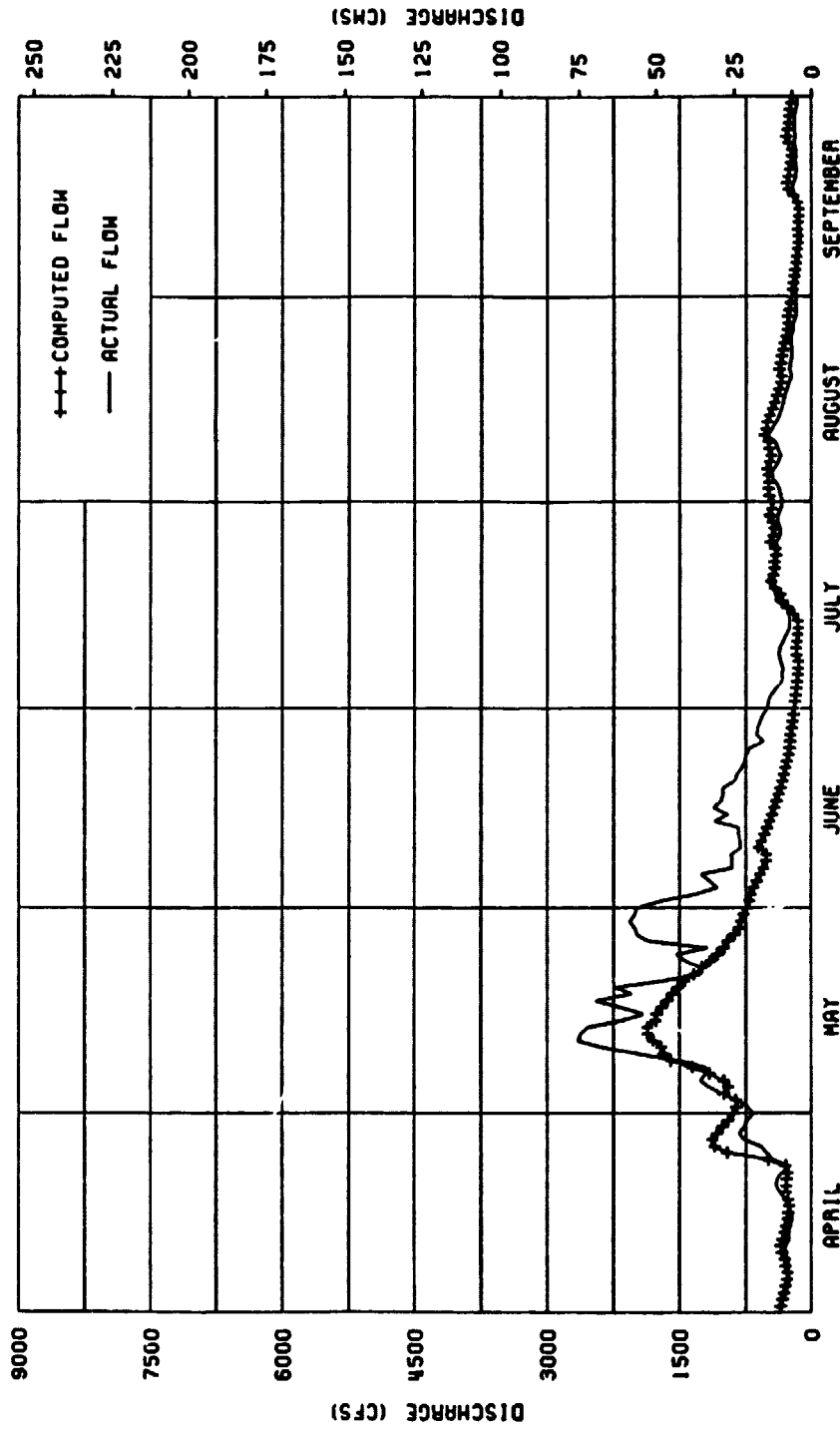
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PARBOLIC AND EXPONENTIAL ESTIMATE OF SNOW COVER.

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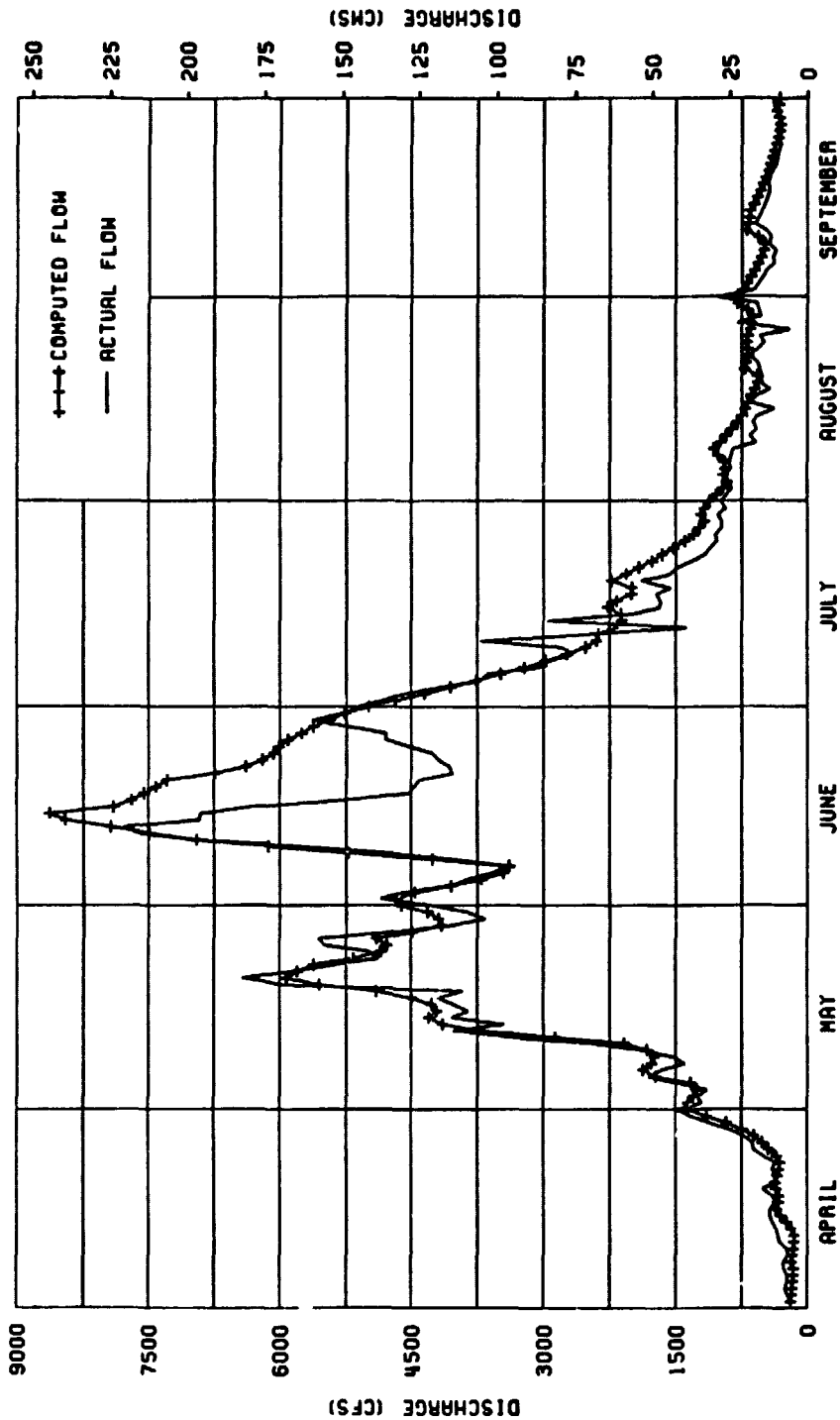
RIO GRANDE RIVER NEAR DEL NORTE, COLORADO, 1975.
PARBOLIC AND EXPONENTIAL ESTIMATE OF SNOW COVER.

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RIO GRANDE RIVER NEAR DEL NORTE, COLORADO, 1974.
PARBOLIC AND EXPONENTIAL ESTIMATE OF SNOW COVER.

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RIO GRANDE RIVER NEAR DEL NORTE, COLORADO, 1973.
PARBOLIC AND EXPONENTIAL ESTIMATE OF SNOW COVER.

APPENDIX H
Predictive Mode Model Runs
1980

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PARABOLIC AND EXPONENTIAL ESTIMATE OF SNOW COVER METHOD WITH SATELLITE UPDATE ROUTINE
NUMBER OF ZONES = 3

ZONE	FIFC1	FIFC2	ZEROC1	ZEROC2	FSCC1	FSCC2	FSCC3	ZSCC1	ZSCC2
1	-133.03000	0.37631	-22.89360	0.69667	0.96695	-0.23520	-0.19350	0.70695	-5.90880
2	-27.55000	0.26677	190.61000	0.36310	0.98222	-0.18120	-0.26680	0.68164	-6.06990
3	27.82000	0.17725	227.39999	0.69930	0.97777	-0.28830	-0.16018	0.77865	-5.66900

SATELLITE DATA

MONTH	DAY	ZONE 1	ZONE 2	ZONE 3
-------	-----	--------	--------	--------

5	17	0.026	0.774	0.996
6	13	0.000	0.011	0.379

SATELLITE UPDATE INFORMATION, REL. DATE= 47, SNOW COVER =0.026, CONDITION # 2, OZ ACDD = 550.2691
IZ.50Z ACDD.OZ ACDD= 1 130.3870 550.2691

SATELLITE UPDATE INFORMATION, REL. DATE= 47, SNOW COVER =0.774, CONDITION # 1, 50Z ACDD = 268.8428, OZ ACDD = 594.0295
SATELLITE UPDATE INFORMATION, REL. DATE= 74, SNOW COVER =0.011, CONDITION # 2, OZ ACDD = 540.0907

IZ.50Z ACDD.OZ ACDD= 2 268.8428 540.0907

SATELLITE UPDATE INFORMATION, REL. DATE= 47, SNOW COVER =0.996, CONDITION # 1, 50Z ACDD = 300.3893, OZ ACDD = 1302.7610
SATELLITE UPDATE, REL. DATE= 74, SNOW COVER =0.379, CONDITION # 4.OZ ACDD=306.834, 50Z ACDD=152.303
IZ.50Z ACDD.OZ ACDD= 3 152.3028 306.8342

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 5/11/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 1

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.41	0.967	5.18	0.75	0.270	13.37	0.00	0.000	31.06	0.00	0.000	30.12	0.02	0.000	22.12	0.00	0.000
2	0.00	0.49	0.967	9.74	0.06	0.228	13.74	0.00	0.000	29.56	0.00	0.000	32.87	0.13	0.000	24.12	0.00	0.000
3	0.00	0.00	0.967	12.81	0.30	0.183	17.68	0.00	0.000	27.24	0.00	0.000	30.31	0.05	0.000	23.49	0.00	0.000
4	0.00	0.00	0.967	9.68	0.12	0.154	18.62	0.00	0.000	28.62	0.00	0.000	31.56	0.00	0.000	25.12	0.00	0.000
5	2.24	0.08	0.963	13.62	0.10	0.122	20.55	0.00	0.000	29.30	0.00	0.000	27.75	0.09	0.000	25.81	0.00	0.000
6	2.87	0.04	0.957	14.61	0.18	0.095	23.93	0.00	0.000	29.74	0.00	0.000	30.81	0.00	0.000	22.56	0.00	0.000
7	0.00	0.04	0.957	14.99	0.46	0.073	21.05	0.00	0.000	29.37	0.33	0.000	32.50	0.00	0.000	27.74	0.00	0.000
8	0.00	0.00	0.957	13.99	0.04	0.057	24.12	0.00	0.000	29.68	0.00	0.000	30.74	0.11	0.000	26.68	0.04	0.000
9	0.55	0.08	0.956	10.37	0.00	0.048	27.81	0.00	0.000	31.43	0.00	0.000	29.12	0.00	0.000	21.18	0.08	0.000
10	5.68	0.00	0.945	14.00	0.04	0.038	25.18	0.00	0.000	33.68	0.00	0.000	31.18	0.00	0.000	22.74	0.23	0.000
11	0.43	0.35	0.944	16.74	0.11	0.028	24.37	0.00	0.000	32.24	0.00	0.000	29.18	0.03	0.000	20.05	0.08	0.000
12	0.00	0.00	0.944	5.18	0.00	0.026	22.74	0.00	0.000	32.56	0.00	0.000	24.31	0.00	0.000	18.49	0.00	0.000
13	0.00	0.08	0.944	5.81	0.00	0.023	22.31	0.00	0.000	30.37	0.09	0.000	25.62	0.00	0.000	19.74	0.00	0.000
14	4.30	0.00	0.935	10.75	0.15	0.019	22.24	0.00	0.000	28.18	0.00	0.000	26.81	0.01	0.000	22.24	0.03	0.000
15	8.05	0.00	0.917	6.43	0.61	0.017	19.99	0.00	0.000	27.81	0.00	0.000	28.06	0.00	0.000	22.99	0.00	0.000
16	7.37	0.00	0.899	9.24	0.17	0.015	21.55	0.00	0.000	30.43	0.00	0.000	25.81	0.00	0.000	23.87	0.00	0.000
17	9.18	0.00	0.875	11.06	0.11	0.026	26.24	0.00	0.000	30.74	0.00	0.000	24.93	0.00	0.000	22.80	0.00	0.000
18	11.61	0.00	0.842	8.56	0.08	0.023	25.74	0.00	0.000	31.81	0.00	0.000	25.56	0.00	0.000	21.49	0.00	0.000
19	13.68	0.00	0.798	13.93	0.00	0.019	27.06	0.00	0.000	33.05	0.00	0.000	25.37	0.00	0.000	22.49	0.00	0.000
20	16.05	0.00	0.742	18.87	0.00	0.015	23.99	0.00	0.000	31.24	0.00	0.000	21.62	0.00	0.000	20.31	0.00	0.000
21	16.49	0.00	0.679	19.31	0.00	0.011	26.31	0.00	0.000	31.43	0.00	0.000	22.43	0.00	0.000	17.62	0.00	0.000
22	15.93	0.27	0.611	21.05	0.11	0.008	27.05	0.00	0.000	31.99	0.02	0.000	22.87	0.12	0.000	15.24	0.00	0.000
23	11.49	0.23	0.559	17.05	0.00	0.006	26.55	0.00	0.000	27.56	0.00	0.000	24.31	0.42	0.000	15.49	0.00	0.000
24	5.49	0.78	0.538	15.49	0.00	0.005	29.49	0.00	0.000	27.99	0.00	0.000	21.18	0.35	0.000	16.24	0.00	0.000
25	4.75	0.30	0.538	5.93	0.00	0.005	29.55	0.00	0.000	28.56	0.02	0.000	23.99	0.12	0.000	16.37	0.00	0.000
26	2.50	0.13	0.538	10.93	0.00	0.004	31.12	0.00	0.000	29.93	0.00	0.000	23.75	0.00	0.000	17.87	0.00	0.000
27	8.81	0.00	0.526	15.05	0.00	0.003	31.74	0.00	0.000	30.49	0.00	0.000	21.62	0.00	0.000	19.62	0.00	0.000
28	11.68	0.11	0.430	14.68	0.00	0.003	28.62	0.00	0.000	30.12	0.00	0.000	22.31	0.00	0.000	19.12	0.00	0.000
29	13.06	0.04	0.343	15.05	0.00	0.002	29.24	0.00	0.000	33.62	0.00	0.000	23.50	0.00	0.000	21.99	0.00	0.000
30	8.68	0.22	0.295	14.18	0.00	0.000	35.12	0.00	0.000	31.18	0.03	0.000	22.06	0.00	0.000	22.74	0.00	0.000
31				14.55	0.00	0.000				32.24	0.00	0.000	22.18	0.00	0.000			

RANCO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 5/11/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 2

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.98	0.982	1.29	0.38	0.854	5.59	0.00	0.534	25.61	0.00	0.000	23.38	0.02	0.000	15.38	0.00	0.000
2	0.00	0.58	0.982	2.48	0.09	0.847	6.48	0.00	0.534	24.11	0.00	0.000	27.16	0.13	0.000	19.45	0.00	0.000
3	0.00	0.00	0.982	6.32	0.72	0.830	9.64	0.00	0.478	19.98	0.00	0.000	30.05	0.05	0.000	17.27	0.00	0.000
4	0.00	0.00	0.982	5.79	0.10	0.814	11.88	0.00	0.383	21.88	0.00	0.000	26.11	0.00	0.000	18.38	0.00	0.000
5	0.00	0.18	0.982	6.88	0.02	0.793	13.04	0.00	0.300	20.75	0.00	0.000	24.64	0.09	0.000	19.32	0.00	0.000
6	0.00	0.09	0.982	5.80	0.36	0.775	14.85	0.00	0.227	22.48	0.00	0.000	26.40	0.00	0.000	17.11	0.00	0.000
7	0.00	0.09	0.982	8.77	0.66	0.746	13.54	0.00	0.177	23.66	0.33	0.000	28.35	0.00	0.000	22.56	0.00	0.000
8	0.00	0.00	0.982	7.77	0.01	0.720	19.45	0.00	0.123	23.72	0.00	0.000	25.56	0.11	0.000	22.79	0.04	0.000
9	0.00	0.18	0.982	6.74	0.00	0.696	23.40	0.00	0.079	24.43	0.00	0.000	24.45	0.00	0.000	17.29	0.08	0.000
10	0.00	0.00	0.982	9.85	0.09	0.659	19.22	0.00	0.055	27.72	0.00	0.000	27.29	0.00	0.000	17.56	0.23	0.000
11	0.00	0.47	0.982	11.56	0.27	0.613	18.66	0.00	0.039	27.06	0.00	0.000	23.22	0.03	0.000	12.54	0.08	0.000
12	0.00	0.00	0.982	1.29	0.00	0.607	15.48	0.00	0.029	27.11	0.00	0.000	19.90	0.00	0.000	12.27	0.00	0.000
13	0.00	0.18	0.982	0.00	0.00	0.607	15.82	0.00	0.011	24.66	0.09	0.000	20.95	0.00	0.000	14.56	0.00	0.000
14	0.00	0.00	0.982	7.64	0.36	0.575	14.98	0.00	0.008	22.22	0.00	0.000	20.32	0.01	0.000	17.06	0.03	0.000
15	0.54	0.00	0.982	1.51	0.43	0.569	11.69	0.00	0.006	21.32	0.00	0.000	22.61	0.00	0.000	16.77	0.00	0.000
16	0.00	0.00	0.982	4.06	0.11	0.551	14.04	0.00	0.004	23.43	0.00	0.000	23.48	0.00	0.000	18.16	0.00	0.000
17	1.14	0.00	0.980	7.69	0.27	0.774	18.98	0.00	0.003	23.48	0.00	0.000	20.01	0.00	0.000	14.25	0.00	0.000
18	2.80	0.00	0.977	3.11	0.18	0.768	18.48	0.00	0.002	25.32	0.00	0.000	20.11	0.00	0.000	15.27	0.00	0.000
19	5.64	0.00	0.970	6.93	0.00	0.755	21.61	0.00	0.000	25.54	0.00	0.000	17.59	0.00	0.000	16.27	0.00	0.000
20	8.54	0.00	0.957	11.09	0.00	0.733	15.69	0.00	0.000	26.06	0.00	0.000	14.88	0.00	0.000	13.82	0.00	0.000
21	10.27	0.00	0.940	12.82	0.00	0.706	19.82	0.00	0.000	26.51	0.00	0.000	15.43	0.00	0.000	10.88	0.00	0.000
22	8.93	0.63	0.924	13.54	0.27	0.676	19.54	0.00	0.000	23.69	0.02	0.000	15.09	0.12	0.000	7.98	0.00	0.000
23	5.27	0.54	0.914	9.54	0.00	0.655	19.04	0.00	0.000	22.11	0.00	0.000	17.82	0.42	0.000	9.27	0.00	0.000
24	0.00	0.63	0.914	7.19	0.00	0.638	21.19	0.00	0.000	21.77	0.00	0.000	13.14	0.35	0.000	8.98	0.00	0.000
25	5.79	0.72	0.901	0.00	0.00	0.638	22.04	0.00	0.000	25.19	0.02	0.000	15.69	0.12	0.000	10.66	0.00	0.000
26	0.42	0.19	0.900	3.93	0.00	0.629	24.38	0.00	0.000	25.01	0.00	0.000	20.64	0.00	0.000	14.24	0.00	0.000
27	2.32	0.00	0.895	7.54	0.00	0.611	24.48	0.00	0.000	24.27	0.00	0.000	16.95	0.00	0.000	14.95	0.00	0.000
28	5.72	0.27	0.882	6.64	0.00	0.594	21.88	0.00	0.000	25.45	0.00	0.000	17.90	0.00	0.000	12.38	0.00	0.000
29	7.61	0.09	0.864	7.54	0.00	0.575	24.04	0.00	0.000	31.03	0.00	0.000	19.35	0.00	0.000	15.77	0.00	0.000
30	2.72	0.29	0.857	6.14	0.00	0.560	30.45	0.00	0.000	25.22	0.03	0.000	18.69	0.00	0.000	15.48	0.00	0.000
31				7.04	0.00	0.541				22.91	0.00	0.000	18.29	0.00	0.000			

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 5/11/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 3

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	1.53	0.978	0.00	0.30	0.946	0.00	0.00	0.905	20.38	0.00	0.000	16.89	0.30	0.000	8.89	0.00	0.000
2	0.00	0.67	0.978	0.00	0.13	0.946	0.00	0.00	0.905	18.88	0.00	0.000	21.48	0.00	0.000	14.97	0.00	0.000
3	0.00	0.00	0.978	0.09	1.11	0.945	1.91	0.00	0.903	13.00	0.00	0.000	29.80	0.00	0.000	11.29	0.00	0.000
4	0.00	0.00	0.978	2.05	0.10	0.941	5.39	0.00	0.896	15.39	0.00	0.000	20.88	0.60	0.000	11.89	0.00	0.000
5	0.00	0.28	0.978	0.39	0.00	0.940	5.81	0.00	0.889	12.52	0.00	0.000	21.64	0.20	0.000	13.09	0.00	0.000
6	0.00	0.14	0.978	0.00	0.54	0.940	6.13	0.00	0.881	15.50	0.00	0.000	22.16	0.00	0.000	11.88	0.50	0.000
7	0.00	0.14	0.978	2.79	0.85	0.934	6.31	0.00	0.873	18.18	0.10	0.000	24.36	0.30	0.000	17.57	0.00	0.000
8	0.00	0.00	0.978	1.79	0.00	0.930	14.97	0.00	0.853	17.98	0.00	0.000	20.57	0.45	0.000	19.05	0.50	0.000
9	0.00	0.28	0.978	3.25	0.00	0.923	19.16	0.00	0.827	17.70	0.00	0.000	19.97	0.00	0.000	13.55	1.00	0.000
10	0.00	0.00	0.978	5.86	0.14	0.909	13.48	0.00	0.808	21.98	0.00	0.000	23.55	0.35	0.000	12.57	1.40	0.000
11	0.00	0.59	0.978	6.57	0.42	0.894	13.18	0.00	0.788	22.07	0.00	0.000	17.48	0.00	0.000	5.31	0.00	0.000
12	0.00	0.00	0.978	0.00	0.00	0.894	8.50	0.00	0.775	21.88	0.00	0.000	15.66	0.10	0.000	6.29	0.00	0.000
13	0.00	0.28	0.978	0.00	0.00	0.894	9.59	0.10	0.379	19.18	0.20	0.000	16.47	0.30	0.000	9.57	0.00	0.000
14	0.00	0.00	0.978	4.64	0.56	0.882	8.00	0.00	0.283	16.48	0.00	0.000	14.09	0.60	0.000	12.07	0.00	0.000
15	0.00	0.00	0.978	0.00	0.40	0.882	3.72	0.00	0.247	15.09	0.00	0.000	17.38	0.00	0.000	10.79	0.00	0.000
16	0.00	0.00	0.978	0.00	0.10	0.882	6.81	0.00	0.192	16.70	0.00	0.000	21.23	0.00	0.000	12.68	0.00	0.000
17	0.00	0.00	0.978	4.45	0.42	0.928	12.00	0.00	0.124	16.50	0.00	0.000	15.27	0.25	0.000	6.02	0.00	0.000
18	0.00	0.00	0.978	0.00	0.28	0.928	11.50	0.00	0.081	19.09	0.00	0.000	14.88	0.00	0.000	9.29	0.00	0.000
19	0.00	0.00	0.978	0.20	0.00	0.928	16.38	0.00	0.044	18.31	0.10	0.000	10.11	0.00	0.000	10.29	0.00	0.000
20	1.31	0.00	0.975	3.61	0.00	0.923	7.72	0.00	0.034	21.07	0.00	0.000	8.39	0.00	0.000	7.59	0.00	0.000
21	4.29	0.00	0.967	6.59	0.00	0.916	13.59	0.00	0.020	21.77	0.00	0.000	8.70	0.00	0.000	4.39	0.00	0.000
22	2.20	0.77	0.963	6.31	0.42	0.908	12.31	0.00	0.013	15.72	0.00	0.000	7.61	1.85	0.000	1.00	0.00	0.000
23	0.00	0.84	0.963	2.31	0.00	0.906	11.81	0.00	0.008	16.88	0.00	0.000	11.59	1.00	0.000	3.29	0.00	0.000
24	0.00	0.60	0.963	0.00	0.00	0.906	13.22	0.00	0.005	15.79	0.00	0.000	5.41	0.95	0.000	2.00	0.00	0.000
25	5.80	1.11	0.951	0.00	0.00	0.906	14.81	0.00	0.003	21.95	0.00	0.000	7.72	0.00	0.000	5.18	0.00	0.000
26	0.00	0.25	0.951	0.00	0.00	0.906	17.89	0.00	0.000	20.27	0.00	0.000	17.64	0.00	0.000	10.75	0.00	0.000
27	0.00	0.00	0.951	0.31	0.00	0.905	17.50	0.00	0.000	18.29	0.00	0.000	12.47	0.00	0.000	10.47	0.00	0.000
28	0.00	0.42	0.951	0.00	0.00	0.905	15.39	0.00	0.000	20.97	0.00	0.000	13.66	0.00	0.000	5.89	0.00	0.000
29	2.38	0.14	0.946	0.31	0.00	0.905	19.07	0.00	0.000	28.54	0.00	0.000	15.36	0.00	0.000	9.79	0.00	0.000
30	0.00	0.35	0.946	0.00	0.00	0.905	25.97	0.00	0.003	19.48	0.00	0.000	15.25	0.00	0.000	8.50	0.00	0.000
31				0.00	0.00	0.905				13.93	0.20	0.000	14.36	0.00	0.000			

RANGO/MARTINEC MODEL VERSION KCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 132C SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 5/11/82

WATERSHED MELT AND RUNOFF COEFFICIENTS

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	1 - 15	16 - 30		1 - 15	16 - 30		1 - 15	16 - 30		1 - 15	16 - 30		1 - 15	16 - 30		1 - 15	16 - 30	
DATA FOR ZONE 1:																		
MELT FACTORS	0.050	0.050		0.070	0.070		0.070	0.070		0.070	0.070		0.070	0.070		0.070	0.070	
RUNOFF COEF.	0.700	0.300		0.150	0.150		0.150	0.150		0.150	0.150		0.150	0.150		0.150	0.150	
FREC. METHOD	0	0		0	1		1	1		1	1		1	1		1	1	
DATA FOR ZONE 2:																		
MELT FACTORS	0.030	0.030		0.030	0.140		0.140	0.140		0.140	0.140		0.140	0.140		0.140	0.140	
RUNOFF COEF.	0.750	0.650		0.650	0.650		0.650	0.200		0.150	0.150		0.150	0.150		0.150	0.150	
FREC. METHOD	0	0		0	0		1	1		1	1		1	1		1	1	
DATA FOR ZONE 3:																		
MELT FACTORS	0.030	0.030		0.030	0.070		0.140	0.140		0.140	0.140		0.140	0.140		0.140	0.140	
RUNOFF COEF.	0.760	0.800		0.800	0.800		0.850	0.300		0.200	0.180		0.180	0.180		0.180	0.180	
FREC. METHOD	0	0		0	0		0	1		1	1		1	1		1	1	

NOTE: FREC. METHOD:
0 = FREC. RUNOFF COMPUTED FOR NO-1-SNOWCOVERED AREAS ONLY
1 = FREC. RUNOFF COMPUTED FOR ALL AREAS

KINGU/MARTINEC MODEL VERSION KCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 5/11/82

COMPUTED DAILY RUNOFF FOR ZONE 1

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	783.7	0.0	0.0	24.3	0.0
2	0.0	244.8	0.0	0.0	157.8	0.0
3	0.0	496.4	0.0	0.0	60.7	0.0
4	0.0	250.2	0.0	0.0	0.0	0.0
5	627.8	247.7	0.0	0.0	109.3	0.0
6	788.0	315.4	0.0	0.0	0.0	0.0
7	0.0	610.7	0.0	400.6	0.0	0.0
8	0.0	113.9	0.0	0.0	133.5	0.0
9	149.0	42.2	0.0	0.0	0.0	48.6
10	1520.6	91.5	0.0	0.0	0.0	97.1
11	115.0	169.8	0.0	0.0	36.4	279.2
12	0.0	11.3	0.0	0.0	0.0	97.1
13	0.0	11.5	0.0	109.3	0.0	0.0
14	1138.9	196.2	0.0	0.0	12.1	0.0
15	2090.7	737.2	0.0	0.0	0.0	36.4
16	804.2	218.0	0.0	0.0	0.0	0.0
17	974.9	158.0	0.0	0.0	0.0	0.0
18	1186.1	113.9	0.0	0.0	0.0	0.0
19	1326.1	22.4	0.0	0.0	0.0	0.0
20	1446.7	23.3	0.0	0.0	0.0	0.0
21	1359.0	18.2	0.0	0.0	0.0	0.0
22	1437.3	148.3	0.0	0.0	0.0	0.0
23	1026.3	9.4	0.0	24.3	145.7	0.0
24	1233.3	6.9	0.0	0.0	509.9	0.0
25	646.7	2.4	0.0	0.0	424.9	0.0
26	309.1	3.8	0.0	24.3	145.7	0.0
27	562.6	4.3	0.0	0.0	0.0	0.0
28	761.6	3.4	0.0	0.0	0.0	0.0
29	607.3	2.8	0.0	0.0	0.0	0.0
30	687.4	0.0	0.0	36.4	0.0	0.0
31		0.0	0.0	0.0	0.0	0.0

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MODEL VERSION KCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 5/11/82

COMPUTED DAILY RUNOFF FOR ZONE 2

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	
1	0.0	286.4	3624.3	0.0	0.0	0.0	40.0	0.0	0.0	0.0	0.0	
2	0.0	764.3	4201.4	0.0	0.0	0.0	260.1	0.0	0.0	0.0	0.0	
3	0.0	2705.1	5586.8	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	
4	0.0	1574.2	5515.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5	0.0	1454.9	4746.2	0.0	0.0	0.0	180.0	0.0	0.0	0.0	0.0	
6	0.0	1871.1	4096.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
7	0.0	3153.1	2901.0	660.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
8	0.0	1478.9	2898.5	0.0	0.0	0.0	220.1	0.0	0.0	0.0	0.0	
9	0.0	1219.4	2253.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
10	0.0	1953.6	1292.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
11	0.0	2748.5	885.9	0.0	0.0	0.0	60.0	0.0	0.0	0.0	0.0	
12	0.0	203.7	550.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
13	0.0	0.0	211.2	180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
14	0.0	2468.8	143.0	0.0	0.0	0.0	20.0	0.0	0.0	0.0	0.0	
15	159.1	223.3	85.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
16	0.0	4816.9	23.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
17	290.6	7752.7	20.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
18	711.4	3261.1	13.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
19	1422.2	6348.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
20	2126.2	9861.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
21	2511.9	10984.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
22	2560.9	11873.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
23	1656.8	7582.2	0.0	0.0	0.0	0.0	40.0	240.1	0.0	0.0	0.0	
24	0.0	5568.5	0.0	0.0	0.0	0.0	0.0	840.2	0.0	0.0	0.0	
25	1973.0	0.0	0.0	0.0	0.0	0.0	0.0	700.2	0.0	0.0	0.0	
26	98.4	2999.3	0.0	0.0	0.0	0.0	40.0	240.1	0.0	0.0	0.0	
27	540.2	5588.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
28	1588.0	4789.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
29	1815.8	5265.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
30	966.0	4170.2	0.0	0.0	0.0	60.0	0.0	0.0	0.0	0.0	0.0	
31		4624.3				0.0	0.0	0.0	0.0	0.0	0.0	

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.									
THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 5/11/82									
COMPUTED DAILY RUNOFF FOR ZONE 3									
DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS			
1	0.0	0.0	0.0	0.0	759.4	0.0			
2	0.0	0.0	0.0	0.0	0.0	0.0			
3	0.0	28.7	2885.0	0.0	0.0	0.0			
4	0.0	717.4	8082.4	0.0	1518.8	0.0			
5	0.0	123.8	8642.4	0.0	506.3	0.0			
6	0.0	0.0	9039.4	0.0	0.0	1265.7			
7	0.0	1509.0	9219.6	281.3	759.4	0.0			
8	0.0	562.0	21379.0	0.0	1139.1	1265.7			
9	0.0	1012.4	26516.8	0.0	0.0	2531.3			
10	0.0	1941.3	18219.4	0.0	886.0	3543.8			
11	0.0	2483.9	17382.9	0.0	0.0	0.0			
12	0.0	0.0	11026.6	0.0	253.1	0.0			
13	0.0	0.0	6824.8	562.5	759.4	0.0			
14	0.0	2123.3	3783.5	0.0	1518.8	0.0			
15	0.0	0.0	1534.9	0.0	0.0	0.0			
16	0.0	0.0	772.5	0.0	0.0	0.0			
17	0.0	3845.8	876.5	0.0	632.8	0.0			
18	0.0	0.0	550.9	0.0	0.0	0.0			
19	0.0	157.5	430.2	253.1	0.0	0.0			
20	431.2	2775.6	152.8	0.0	0.0	0.0			
21	1400.0	4752.9	163.3	0.0	0.0	0.0			
22	1123.5	4946.9	94.2	0.0	4682.9	0.0			
23	0.0	1647.5	58.6	0.0	2531.3	0.0			
24	0.0	0.0	40.4	0.0	2404.8	0.0			
25	2477.0	0.0	26.3	0.0	0.0	0.0			
26	0.0	0.0	0.0	0.0	0.0	0.0			
27	0.0	221.0	0.0	0.0	0.0	0.0			
28	0.0	0.0	0.0	0.0	0.0	0.0			
29	845.2	220.9	0.0	0.0	0.0	0.0			
30	0.0	0.0	0.0	0.0	0.0	0.0			
31		0.0		506.3	0.0				

ORIGINAL PAGE IS
OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 5/11/82

DAY	STREAMFLOW FOR APRIL		STREAMFLOW FOR MAY		STREAMFLOW FOR JUNE		STREAMFLOW FOR JULY		STREAMFLOW FOR AUGUST		STREAMFLOW FOR SEPTEMBER	
	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	ACTUAL CFS
1	217.	195.	1817.	1213.	5398.	4465.	2286.	3129.	350.	560.	642.	366.
2	207.	243.	1755.	1093.	5234.	4358.	2092.	3010.	371.	509.	601.	380.
3	198.	225.	1731.	1097.	5217.	4633.	1917.	2826.	371.	615.	563.	349.
4	189.	247.	1841.	1248.	5637.	5102.	1760.	2559.	374.	529.	528.	389.
5	186.	266.	1886.	1414.	6425.	5709.	1618.	2268.	429.	496.	496.	363.
6	207.	283.	1887.	1533.	7127.	6094.	1489.	2203.	441.	470.	482.	312.
7	226.	288.	1962.	1948.	7726.	5907.	1394.	1938.	425.	457.	513.	340.
8	215.	255.	2184.	2262.	8439.	5811.	1370.	2049.	452.	476.	499.	355.
9	207.	284.	2183.	2310.	10211.	6981.	1265.	1806.	495.	490.	569.	361.
10	217.	306.	2220.	2052.	12030.	7413.	1169.	1755.	476.	434.	726.	623.
11	264.	334.	2393.	2011.	12837.	744.	1083.	1648.	491.	416.	908.	1641.
12	255.	288.	2562.	1889.	13297.	7102.	1004.	1474.	470.	397.	859.	974.
13	243.	288.	2355.	1581.	13000.	7271.	944.	1510.	463.	372.	800.	743.
14	242.	305.	2236.	1528.	12258.	6575.	926.	1456.	490.	447.	747.	644.
15	296.	375.	2387.	1569.	11275.	6023.	861.	1323.	534.	493.	702.	595.
16	381.	430.	2335.	1499.	10191.	5564.	801.	1171.	502.	491.	656.	536.
17	409.	483.	2680.	1529.	9170.	5322.	747.	989.	479.	422.	614.	449.
18	465.	554.	3328.	1554.	8276.	5510.	697.	909.	481.	396.	575.	436.
19	559.	684.	3389.	1574.	7459.	5596.	655.	842.	452.	366.	539.	406.
20	710.	853.	3788.	1923.	6723.	5205.	626.	910.	426.	393.	506.	370.
21	944.	983.	4672.	2522.	6051.	4733.	586.	897.	401.	323.	476.	359.
22	1247.	1105.	5764.	3443.	5458.	4519.	550.	770.	436.	262.	447.	353.
23	1501.	1458.	6728.	4257.	4926.	4505.	519.	729.	690.	431.	421.	333.
24	1571.	1240.	6910.	4555.	4452.	4552.	488.	811.	894.	841.	397.	325.
25	1605.	995.	6659.	3811.	4030.	4358.	459.	784.	1033.	743.	375.	320.
26	1807.	903.	6040.	3368.	3653.	4202.	436.	701.	981.	621.	354.	317.
27	1705.	858.	5791.	3382.	3315.	4107.	410.	679.	911.	541.	335.	298.
28	1677.	959.	5773.	3636.	3013.	3903.	387.	582.	848.	486.	317.	288.
29	1745.	1171.	5689.	3959.	2744.	3467.	366.	510.	789.	453.	301.	293.
30	1842.	1311.	5643.	4111.	2502.	3134.	347.	729.	736.	334.	285.	300.
31			5505.	4292.			338.	426.	687.	335.		

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

SUMMARY OF THE MODEL RUN FOR THE YEAR OF 1980 RUN OF MODEL MADE 5/11/82

NASH-SUTCLIFFE GOODNESS OF FIT METHOD - NSR**2 = 0.4872

ACTUAL SEASON VOLUME = 324717.000 CFS-DAYS

COMPUTED SEASON VOLUME = 414906.531 CFS-DAYS

SEASONAL DIFFERENCE IN PERCENT = 21.74

**Parabolic and Exponential
with Satellite Updating
South Fork**

ORIGINAL PAGE IS
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NUMERICAL AND EXPERIMENTAL ESTIMATES OF SNOW COVER METHOD WITH SATELLITE UPDATE ROUTINE

NUMBER OF ZONES = 3

ZONE	FIFC1	FIFC2	ZEROC1	ZEROC2	FSCC1	FSCC2	FSCC3	ZSCC1	ZSCC2
1	-124.36000	1.91070	85.20000	2.62630	0.98676	-0.32955	-0.14935	0.59310	-3.72960
ZONE	FIFC1	FIFC2	ZEROC1	ZEROC2	FSCC1	FSCC2	FSCC3	ZSCC1	ZSCC2
2	19.50000	0.70610	280.57001	1.66780	0.95503	-0.20650	-0.21400	0.47954	-3.69190
ZONE	FIFC1	FIFC2	ZEROC1	ZEROC2	FSCC1	FSCC2	FSCC3	ZSCC1	ZSCC2
3	-0.71200	1.67500	162.42000	3.14010	0.98217	-0.38648	-0.06707	0.54424	-3.74060

SATELLITE DATA

MONTH	DAY	ZONE 1	ZONE 2	ZONE 3
-------	-----	--------	--------	--------

4	29	0.658	0.996	1.000
5	17	0.356	0.958	1.000
6	13	0.000	0.120	0.589
6	30	0.000	0.001	0.065

SATELLITE UPDATE INFORMATION, REL. DATE= 29, SNOW COVER =0.658, CONDITION # 1, 50% ACDD = 220.9249, 0% ACDD = 559.8019
SATELLITE UPDATE INFORMATION, REL. DATE= 47, SNOW COVER =0.356, CONDITION # 2, 0% ACDD = 1182.7494
IZ.5 X ACDD,0% ACDD= 1 220.9249 1182.7494
SATELLITE UPDATE INFORMATION, REL. DATE= 29, SNOW COVER =0.996, CONDITION # 1, 50% ACDD = 334.4487, 0% ACDD = 1024.4752
SATELLITE UPDATE INFORMATION, REL. DATE= 47, SNOW COVER =0.958, CONDITION # 1, 50% ACDD = 835.9971, 0% ACDD = 2209.1267
SATELLITE UPDATE INFORMATION, REL. DATE= 74, SNOW COVER =0.120, CONDITION # 4,0% ACDD=765.515, 50% ACDD=280.491
SATELLITE UPDATE INFORMATION, REL. DATE= 91, SNOW COVER =0.001, CONDITION # 2, 0% ACDD = 577.6751
IZ.50% ACDD,0% ACDD= 2 280.4915 577.6751
SATELLITE UPDATE INFORMATION, REL. DATE= 29, SNOW COVER =1.000, CONDITION # 1, 50% ACDD = 117.5433, 0% ACDD = 384.1116
SATELLITE UPDATE INFORMATION, REL. DATE= 47, SNOW COVER =1.000, CONDITION # 1, 50% ACDD = 424.5145, 0% ACDD = 959.5864
SATELLITE UPDATE INFORMATION, REL. DATE= 74, SNOW COVER =0.589, CONDITION # 1, 50% ACDD = 223.6475, 0% ACDD = 583.0237
SATELLITE UPDATE INFORMATION, REL. DATE= 91, SNOW COVER =0.065, CONDITION # 2, 0% ACDD = 607.7979
IZ.50% ACDD,0% ACDD= 3 223.6475 607.7979

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OF POOR QUALITY

MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.
THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/13/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 1

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.44	0.987	4.98	0.73	0.624	12.95	0.00	0.156	30.77	0.00	0.000	29.76	0.02	0.000	21.76	0.00	0.000
2	0.00	0.49	0.987	9.36	0.06	0.600	13.36	0.00	0.149	29.27	0.00	0.000	32.56	0.13	0.000	23.87	0.00	0.000
3	0.00	0.00	0.987	12.46	0.32	0.566	17.25	0.00	0.139	26.86	0.00	0.000	30.30	0.05	0.000	23.16	0.00	0.000
4	0.00	0.00	0.987	9.48	0.12	0.540	18.26	0.00	0.129	28.26	0.00	0.000	31.27	0.00	0.000	24.76	0.00	0.000
5	1.86	0.08	0.984	13.26	0.10	0.508	20.15	0.00	0.120	28.85	0.00	0.000	27.58	0.09	0.000	25.46	0.00	0.000
6	2.45	0.04	0.981	14.15	0.19	0.498	23.44	0.00	0.109	29.36	0.00	0.000	30.57	0.00	0.000	22.27	0.00	0.000
7	0.00	0.04	0.981	14.66	0.47	0.424	20.65	0.00	0.101	29.06	0.33	0.000	32.27	0.00	0.000	27.47	0.00	0.000
8	0.00	0.00	0.981	13.66	0.04	0.365	23.67	0.00	0.092	29.36	0.00	0.000	30.47	0.11	0.000	26.48	0.04	0.000
9	0.15	0.08	0.981	10.18	0.00	0.326	27.57	0.00	0.083	31.06	0.00	0.000	28.87	0.00	0.000	20.98	0.08	0.000
10	5.25	0.00	0.973	13.77	0.04	0.280	24.86	0.00	0.075	33.36	0.00	0.000	30.98	0.00	0.000	22.47	0.23	0.000
11	0.06	0.36	0.973	16.47	0.12	0.234	24.06	0.00	0.068	31.97	0.00	0.000	28.86	0.03	0.000	19.65	0.08	0.000
12	0.00	0.00	0.973	4.98	0.00	0.221	22.36	0.00	0.063	32.27	0.00	0.000	24.07	0.00	0.000	18.16	0.00	0.000
13	0.00	0.08	0.973	5.46	0.00	0.208	21.96	0.00	0.000	30.06	0.09	0.000	25.37	0.00	0.000	19.47	0.00	0.000
14	3.73	0.00	0.968	10.58	0.16	0.185	21.86	0.00	0.000	27.86	0.00	0.000	26.46	0.01	0.000	21.97	0.03	0.000
15	7.65	0.00	0.956	6.17	0.60	0.173	19.55	0.00	0.000	27.46	0.00	0.000	27.77	0.00	0.000	22.64	0.00	0.000
16	6.95	0.00	0.946	8.97	0.17	0.157	21.15	0.00	0.000	30.06	0.00	0.000	25.69	0.00	0.000	23.56	0.00	0.000
17	8.75	0.00	0.932	10.88	0.12	0.356	25.86	0.00	0.000	30.36	0.00	0.000	24.67	0.00	0.000	22.35	0.00	0.000
18	11.15	0.00	0.914	8.27	0.08	0.345	25.36	0.00	0.000	31.46	0.00	0.000	25.27	0.00	0.000	21.16	0.00	0.000
19	13.25	0.00	0.892	13.56	0.00	0.327	26.77	0.00	0.000	32.65	0.00	0.000	24.95	0.00	0.000	22.16	0.00	0.000
20	15.65	0.00	0.865	18.45	0.00	0.305	23.55	0.00	0.000	30.97	0.00	0.000	21.26	0.00	0.000	19.96	0.00	0.000
21	16.16	0.00	0.836	18.96	0.00	0.283	25.96	0.00	0.000	31.17	0.00	0.000	22.06	0.00	0.000	17.26	0.00	0.000
22	15.56	0.29	0.806	20.65	0.12	0.261	26.65	0.00	0.000	31.55	0.02	0.000	22.45	0.12	0.000	14.86	0.00	0.000
23	11.16	0.24	0.784	16.65	0.00	0.245	26.15	0.00	0.000	27.27	0.00	0.000	23.96	0.42	0.000	15.16	0.00	0.000
24	5.16	0.77	0.773	15.05	0.00	0.231	29.05	0.00	0.000	27.66	0.00	0.000	20.75	0.35	0.000	15.86	0.00	0.000
25	4.81	0.32	0.763	5.56	0.00	0.226	29.15	0.00	0.000	28.38	0.02	0.000	23.55	0.12	0.000	16.06	0.00	0.000
26	2.39	0.13	0.759	10.56	0.00	0.217	30.76	0.00	0.000	29.67	0.00	0.000	23.58	0.00	0.000	17.68	0.00	0.000
27	8.46	0.00	0.741	14.65	0.00	0.205	31.36	0.00	0.000	30.16	0.00	0.000	21.37	0.00	0.000	19.37	0.00	0.000
28	11.36	0.12	0.716	14.25	0.00	0.194	28.26	0.00	0.000	29.87	0.00	0.000	22.07	0.00	0.000	18.76	0.00	0.000
29	12.77	0.04	0.658	14.65	0.00	0.183	28.97	0.00	0.000	33.48	0.00	0.000	23.27	0.00	0.000	21.66	0.00	0.000
30	8.36	0.22	0.637	13.75	0.00	0.174	34.87	0.00	0.000	30.86	0.03	0.000	21.88	0.00	0.000	22.36	0.00	0.000
31				14.15	0.00	0.164				31.74	0.00	0.000	21.98	0.00	0.000			

ORIGINAL PAGE IS
OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/13/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 2

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.97	0.955	1.40	0.39	0.901	5.79	0.00	0.862	25.76	0.00	0.000	23.55	0.02	0.000	15.55	0.00	0.000
2	0.00	0.58	0.955	2.67	0.09	0.899	6.67	0.00	0.840	24.24	0.00	0.000	27.32	0.13	0.000	19.58	0.00	0.000
3	0.00	0.00	0.955	6.50	0.70	0.893	9.85	0.00	0.855	20.17	0.00	0.000	30.06	0.03	0.000	17.44	0.00	0.000
4	0.00	0.00	0.955	5.90	0.10	0.887	12.05	0.00	0.850	22.05	0.00	0.000	26.24	0.00	0.000	18.55	0.00	0.000
5	0.00	0.18	0.955	7.05	0.02	0.881	13.23	0.00	0.844	20.97	0.00	0.000	24.72	0.09	0.000	19.49	0.00	0.000
6	0.00	0.09	0.955	6.03	0.36	0.875	15.09	0.00	0.838	22.67	0.00	0.000	26.52	0.00	0.000	17.26	0.00	0.000
7	0.00	0.09	0.955	8.94	0.45	0.866	13.73	0.00	0.831	23.82	0.33	0.000	28.46	0.00	0.000	22.70	0.00	0.000
8	0.00	0.00	0.955	7.94	0.01	0.857	19.58	0.00	0.822	23.88	0.00	0.000	25.70	0.11	0.000	22.90	0.04	0.000
9	0.00	0.18	0.955	6.84	0.00	0.850	23.52	0.00	0.811	24.41	0.00	0.000	24.58	0.00	0.000	17.40	0.08	0.000
10	0.00	0.00	0.955	9.96	0.09	0.839	19.38	0.00	0.801	27.88	0.00	0.000	27.40	0.00	0.000	17.70	0.23	0.000
11	0.00	0.47	0.955	1.70	0.26	0.825	18.82	0.00	0.792	27.20	0.00	0.000	23.38	0.03	0.000	12.73	0.08	0.000
12	0.00	0.00	0.955	1.40	0.00	0.824	15.67	0.00	0.784	27.26	0.00	0.000	20.02	0.00	0.000	12.44	0.00	0.000
13	0.00	0.18	0.955	0.00	0.00	0.824	15.99	0.00	0.120	24.82	0.09	0.000	21.08	0.00	0.000	14.70	0.00	0.000
14	0.00	0.00	0.955	7.72	0.35	0.815	15.17	0.00	0.107	22.38	0.00	0.000	20.50	0.01	0.000	17.20	0.03	0.000
15	0.73	0.00	0.954	1.64	0.44	0.813	11.91	0.00	0.098	21.50	0.00	0.000	22.76	0.00	0.000	16.94	0.00	0.000
16	0.00	0.00	0.954	4.20	0.11	0.807	14.23	0.00	0.088	23.61	0.00	0.000	23.54	0.00	0.000	18.32	0.00	0.000
17	1.35	0.00	0.952	7.78	0.26	0.805	19.17	0.00	0.076	23.67	0.00	0.000	20.14	0.00	0.000	14.47	0.00	0.000
18	3.03	0.00	0.948	3.26	0.18	0.801	18.67	0.00	0.066	25.50	0.00	0.000	20.26	0.00	0.000	15.44	0.00	0.000
19	5.85	0.00	0.939	7.11	0.00	0.901	21.76	0.00	0.056	25.73	0.00	0.000	17.79	0.00	0.000	16.44	0.00	0.000
20	8.73	0.00	0.925	11.29	0.00	0.897	15.91	0.00	0.049	26.20	0.00	0.000	15.05	0.00	0.000	14.00	0.00	0.000
21	10.44	0.00	0.906	12.99	0.00	0.893	20.00	0.00	0.042	26.64	0.00	0.000	15.61	0.00	0.000	11.05	0.00	0.000
22	9.11	0.62	0.888	13.73	0.26	0.887	19.73	0.00	0.036	23.91	0.02	0.000	15.29	0.12	0.000	8.17	0.00	0.000
23	5.44	0.53	0.877	9.73	0.00	0.884	19.23	0.00	0.031	22.26	0.00	0.000	17.99	0.42	0.000	9.44	0.00	0.000
24	0.00	0.63	0.877	7.41	0.00	0.881	21.41	0.00	0.027	21.94	0.00	0.000	13.35	0.35	0.000	9.17	0.00	0.000
25	5.76	0.70	0.864	0.00	0.00	0.881	22.23	0.00	0.023	25.28	0.02	0.000	15.91	0.12	0.000	10.82	0.00	0.000
26	0.48	0.19	0.863	4.11	0.00	0.879	24.55	0.00	0.019	25.14	0.00	0.000	20.72	0.00	0.000	14.34	0.00	0.000
27	2.49	0.00	0.857	7.73	0.00	0.876	24.67	0.00	0.016	24.44	0.00	0.000	17.08	0.00	0.000	15.08	0.00	0.000
28	5.88	0.26	0.843	6.85	0.00	0.873	22.05	0.00	0.013	25.58	0.00	0.000	18.02	0.00	0.000	12.55	0.00	0.000
29	7.76	0.09	0.905	7.73	0.00	0.870	24.20	0.00	0.000	31.10	0.00	0.000	19.46	0.00	0.000	15.94	0.00	0.000
30	2.88	0.28	0.902	6.35	0.00	0.868	30.58	0.00	0.001	25.38	0.03	0.000	18.78	0.00	0.000	15.67	0.00	0.000
31				7.23	0.00	0.865				23.15	0.00	0.000	18.40	0.00	0.000			

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/13/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 3

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	1.45	0.982	0.00	0.30	0.932	0.00	0.00	0.905	21.15	0.00	0.053	17.85	0.30	0.000	9.85	0.00	0.000
2	0.00	0.66	0.982	0.00	0.12	0.932	0.53	0.00	0.905	19.65	0.00	0.044	22.49	0.00	0.000	15.63	0.00	0.000
3	0.00	0.00	0.982	1.01	1.06	0.929	3.05	0.00	0.902	14.03	0.00	0.038	29.84	0.00	0.000	12.17	0.00	0.000
4	0.00	0.00	0.982	2.41	0.10	0.920	6.35	0.00	0.895	16.35	0.00	0.033	21.65	0.60	0.000	12.85	0.00	0.000
5	0.00	0.26	0.982	1.35	0.00	0.915	6.87	0.00	0.889	13.73	0.00	0.028	22.09	0.20	0.000	14.01	0.00	0.000
6	0.00	0.13	0.982	0.00	0.51	0.915	7.42	0.00	0.881	16.53	0.00	0.024	22.79	0.00	0.000	12.65	0.50	0.000
7	0.00	0.13	0.982	3.67	0.82	0.902	7.37	0.00	0.874	18.99	0.10	0.020	24.95	0.30	0.000	18.31	0.00	0.000
8	0.00	0.00	0.982	2.67	0.00	0.893	15.63	0.00	0.858	18.83	0.00	0.017	21.31	0.45	0.000	19.61	0.50	0.000
9	0.00	0.26	0.982	3.77	0.00	0.879	19.79	0.00	0.838	18.69	0.00	0.014	20.63	0.00	0.000	14.11	1.00	0.000
10	0.00	0.00	0.982	6.45	0.13	0.856	14.33	0.00	0.824	22.83	0.00	0.000	24.11	0.35	0.000	13.31	1.40	0.000
11	0.00	0.58	0.982	7.31	0.40	0.829	13.99	0.00	0.809	22.81	0.00	0.000	18.33	0.00	0.000	6.37	0.00	0.000
12	0.00	0.00	0.982	0.00	0.00	0.829	9.53	0.00	0.799	22.65	0.00	0.000	16.29	0.10	0.000	7.17	0.00	0.000
13	0.00	0.26	0.982	0.00	0.00	0.829	10.51	0.10	0.589	19.99	0.20	0.000	17.13	0.30	0.000	10.31	0.00	0.000
14	0.00	0.00	0.982	5.05	0.53	0.810	9.03	0.00	0.569	17.33	0.00	0.000	15.01	0.60	0.000	12.81	0.00	0.000
15	0.00	0.00	0.982	0.00	0.40	0.810	4.89	0.00	0.557	16.01	0.00	0.000	18.15	0.00	0.000	11.67	0.00	0.000
16	0.00	0.00	0.982	0.00	0.10	0.810	7.87	0.00	0.539	17.69	0.00	0.000	21.56	0.00	0.000	13.49	0.00	0.000
17	0.00	0.00	0.982	4.93	0.40	0.932	13.03	0.00	0.529	17.53	0.00	0.000	15.97	0.25	0.000	7.23	0.00	0.000
18	0.00	0.00	0.982	0.00	0.26	0.932	12.53	0.00	0.437	20.01	0.00	0.000	15.65	0.00	0.000	10.17	0.00	0.000
19	0.00	0.00	0.982	1.19	0.00	0.931	17.15	0.00	0.366	19.37	0.10	0.000	11.21	0.00	0.000	11.17	0.00	0.000
20	2.37	0.00	0.979	4.71	0.00	0.927	8.89	0.00	0.333	21.81	0.00	0.000	9.35	0.00	0.000	8.51	0.00	0.000
21	5.17	0.00	0.973	7.51	0.00	0.919	14.51	0.00	0.287	22.47	0.00	0.000	9.69	0.00	0.000	5.35	0.00	0.000
22	3.19	0.92	0.969	7.37	0.40	0.912	13.37	0.00	0.249	16.89	0.00	0.000	8.71	1.85	0.000	2.03	0.00	0.000
23	0.17	0.79	0.969	3.37	0.00	0.909	12.87	0.00	0.218	17.65	0.00	0.000	12.51	1.00	0.000	4.17	0.00	0.000
24	0.00	0.60	0.969	0.39	0.00	0.909	14.39	0.00	0.188	16.67	0.00	0.000	6.55	0.95	0.000	3.03	0.00	0.000
25	0.00	1.06	0.969	0.00	0.00	0.909	15.87	0.00	0.159	22.43	0.00	0.000	8.89	0.00	0.000	5.99	0.00	0.000
26	0.00	0.24	0.969	0.00	0.00	0.909	18.85	0.00	0.131	20.97	0.00	0.000	18.09	0.00	0.000	11.27	0.00	0.000
27	0.00	0.00	0.969	1.37	0.00	0.907	18.53	0.00	0.108	19.17	0.00	0.000	13.13	0.00	0.000	11.13	0.00	0.000
28	0.83	0.40	0.968	0.05	0.00	0.907	16.35	0.00	0.091	21.63	0.00	0.000	14.29	0.00	0.000	6.85	0.00	0.000
29	3.15	0.13	0.932	1.37	0.00	0.906	19.81	0.00	0.074	28.90	0.00	0.000	15.95	0.00	0.000	10.67	0.00	0.000
30	0.00	0.34	0.932	0.00	0.00	0.906	26.63	0.00	0.065	20.33	0.00	0.000	15.77	0.00	0.000	9.53	0.00	0.000
31				0.87	0.00	0.905				15.26	0.20	0.000	14.95	0.00	0.000			

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/13/82

WATERSHED MELT AND RUNOFF COEFFICIENTS

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	1 - 15	16 - 30		1 - 15	16 - 30		1 - 15	16 - 30		1 - 15	16 - 30		1 - 15	16 - 30		1 - 15	16 - 30	
DATA FOR ZONE 1:																		
MELT FACTORS	0.050	0.050		0.070	0.070		0.070	0.070		0.070	0.070		0.070	0.070		0.070	0.070	
RUNOFF COEF.	0.750	0.400		0.250	0.180		0.180	0.180		0.180	0.180		0.180	0.180		0.180	0.180	
PREC. METHOD	0	0		0	1		1	1		1	1		1	1		1	1	
DATA FOR ZONE 2:																		
MELT FACTORS	0.030	0.030		0.030	0.100		0.140	0.140		0.140	0.140		0.140	0.140		0.140	0.140	
RUNOFF COEF.	0.700	0.700		0.650	0.600		0.500	0.450		0.200	0.180		0.180	0.180		0.180	0.180	
PREC. METHOD	0	0		0	0		1	1		1	1		1	1		1	1	
DATA FOR ZONE 3:																		
MELT FACTORS	0.030	0.030		0.040	0.100		0.140	0.160		0.160	0.160		0.160	0.160		0.160	0.160	
RUNOFF COEF.	0.850	0.850		0.850	0.850		0.800	0.800		0.600	0.300		0.220	0.220		0.220	0.220	
PREC. METHOD	0	0		0	0		0	1		1	1		1	1		1	1	

NOTE: PREC. METHOD:
0 = PREC. RUNOFF COMPUTED FOR NON-SNOWCOVERED AREAS ONLY
1 = PREC. RUNOFF COMPUTED FOR ALL AREAS

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/13/82

COMPUTED DAILY RUNOFF FOR ZONE 1

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	158.7	32.9	0.0	4.6	0.0
2	0.0	134.5	32.3	0.0	30.2	0.0
3	0.0	204.2	39.0	0.0	11.6	0.0
4	0.0	133.5	38.4	0.0	0.0	0.0
5	88.6	148.0	39.2	0.0	20.9	0.0
6	117.0	190.0	41.7	0.0	0.0	0.0
7	0.0	227.7	33.9	76.7	0.0	0.0
8	0.0	120.7	35.7	0.0	25.6	0.0
9	7.1	75.0	37.0	0.0	0.0	9.3
10	247.3	96.4	30.3	0.0	0.0	18.6
11	2.8	116.6	26.7	0.0	0.0	53.4
12	0.0	24.9	22.8	0.0	7.0	18.6
13	0.0	25.7	0.0	20.9	0.0	0.0
14	174.7	86.4	0.0	0.0	0.0	0.0
15	354.1	184.2	0.0	0.0	2.3	7.0
16	159.7	62.4	0.0	0.0	0.0	0.0
17	210.6	90.9	0.0	0.0	0.0	0.0
18	263.2	65.0	0.0	0.0	0.0	0.0
19	305.2	72.1	0.0	0.0	0.0	0.0
20	345.5	91.4	0.0	0.0	0.0	0.0
21	348.5	87.2	0.0	0.0	0.0	0.0
22	352.7	115.6	0.0	4.6	0.0	0.0
23	252.6	66.3	0.0	0.0	27.9	0.0
24	193.1	56.5	0.0	0.0	97.6	0.0
25	133.5	20.4	0.0	4.6	81.3	0.0
26	63.0	37.3	0.0	0.0	27.9	0.0
27	161.8	48.8	0.0	0.0	0.0	0.0
28	227.6	44.9	0.0	0.0	0.0	0.0
29	224.0	43.7	0.0	0.0	0.0	0.0
30	178.7	38.8	0.0	7.0	0.0	0.0
31		37.8		0.0	0.0	

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/13/82

COMPUTED DAILY RUNOFF FOR ZONE 2

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	68.8	977.3	0.0	10.1	0.0
2	0.0	161.6	1122.2	0.0	65.4	0.0
3	0.0	452.7	1449.2	0.0	25.2	0.0
4	0.0	306.0	2005.3	0.0	0.0	0.0
5	0.0	342.9	2186.6	0.0	45.3	0.0
6	0.0	369.6	2474.0	0.0	0.0	0.0
7	0.0	580.8	2234.2	184.6	0.0	0.0
8	0.0	373.8	3151.1	0.0	55.4	0.0
9	0.0	317.0	3733.2	0.0	0.0	20.1
10	0.0	482.0	3039.8	0.0	0.0	40.3
11	0.0	609.1	2916.9	0.0	15.1	115.8
12	0.0	62.9	2403.9	0.0	0.0	40.3
13	0.0	0.0	375.6	50.3	0.0	0.0
14	0.0	460.9	317.5	0.0	5.0	15.1
15	40.9	72.7	227.7	0.0	0.0	0.0
16	0.0	740.2	219.7	0.0	0.0	0.0
17	75.5	1226.9	255.8	0.0	0.0	0.0
18	168.7	523.4	214.1	0.0	0.0	0.0
19	322.7	1075.3	213.4	0.0	0.0	0.0
20	474.3	1699.8	138.2	0.0	0.0	0.0
21	555.7	1945.4	149.2	0.0	0.0	0.0
22	610.8	2093.4	126.7	10.1	40.4	0.0
23	407.9	1442.7	106.7	0.0	211.4	0.0
24	0.0	1095.1	100.9	0.0	176.2	0.0
25	524.4	0.0	88.5	10.1	40.4	0.0
26	24.3	606.3	81.0	0.0	0.0	0.0
27	146.4	1136.4	67.5	0.0	0.0	0.0
28	425.0	1003.8	51.0	0.0	0.0	0.0
29	472.4	1128.8	0.0	0.0	0.0	0.0
30	222.6	924.5	5.4	15.1	0.0	0.0
31		1049.0		0.0	0.0	

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/13/82

COMPUTED DAILY RUNOFF FOR ZONE 3

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	0.0	0.0	184.8	113.6	0.0
2	0.0	0.0	105.6	141.8	0.0	0.0
3	0.0	54.9	605.7	88.3	0.0	0.0
4	0.0	152.2	1252.4	87.8	227.2	0.0
5	0.0	72.3	1344.8	64.5	75.7	0.0
6	0.0	0.0	1440.5	64.1	0.0	189.3
7	0.0	311.1	1418.9	166.4	113.6	0.0
8	0.0	139.5	2955.3	52.1	170.4	189.3
9	0.0	194.0	3654.4	43.1	0.0	378.6
10	0.0	350.4	2599.7	0.0	132.5	530.0
11	0.0	454.6	2493.3	0.0	0.0	0.0
12	0.0	0.0	1677.5	0.0	37.9	0.0
13	0.0	0.0	1420.2	206.5	113.6	0.0
14	0.0	388.5	1130.8	0.0	227.2	0.0
15	0.0	0.0	600.3	0.0	0.0	0.0
16	0.0	0.0	934.7	0.0	0.0	0.0
17	0.0	760.8	1517.2	0.0	94.6	0.0
18	0.0	0.0	1207.0	0.0	0.0	0.0
19	0.0	142.8	1382.0	51.6	0.0	0.0
20	101.8	638.4	653.1	0.0	0.0	0.0
21	220.7	1009.9	916.5	0.0	0.0	0.0
22	177.3	1034.8	734.8	0.0	700.4	0.0
23	7.2	448.1	618.4	0.0	378.6	0.0
24	0.0	51.8	595.5	0.0	359.7	0.0
25	0.0	0.0	556.7	0.0	0.0	0.0
26	0.0	0.0	543.5	0.0	0.0	0.0
27	0.0	181.8	440.5	0.0	0.0	0.0
28	35.2	6.4	327.9	0.0	0.0	0.0
29	141.8	181.5	323.2	0.0	0.0	0.0
30	0.0	0.0	391.3	0.0	0.0	0.0
31		115.2		103.3	0.0	

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ORIGINAL PAGE 13
OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/13/82

DAY	STREAMFLOW FOR APRIL			STREAMFLOW FOR MAY			STREAMFLOW FOR JUNE			STREAMFLOW FOR JULY			STREAMFLOW FOR AUGUST			STREAMFLOW FOR SEPTEMBER		
	COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS	
1	46.	45.		467.	331.		1198.	1160.		741.	780.		58.	83.		103.	49.	
2	44.	50.		438.	298.		1180.	1170.		658.	745.		62.	84.		94.	47.	
3	41.	48.		436.	310.		1242.	1280.		582.	680.		63.	85.		86.	44.	
4	39.	52.		467.	364.		1461.	1420.		514.	610.		65.	85.		80.	51.	
5	38.	55.		483.	435.		1780.	1540.		455.	540.		75.	84.		74.	61.	
6	41.	57.		495.	500.		2108.	1430.		404.	486.		76.	87.		72.	61.	
7	43.	57.		526.	675.		2421.	1560.		375.	439.		73.	87.		77.	56.	
8	41.	58.		587.	770.		2783.	1430.		367.	435.		79.	105.		76.	69.	
9	39.	64.		592.	735.		3477.	2040.		328.	375.		87.	102.		91.	84.	
10	41.	70.		605.	660.		4132.	2310.		292.	347.		83.	97.		125.	179.	
11	48.	75.		661.	670.		4420.	2150.		258.	325.		84.	91.		160.	278.	
12	45.	75.		688.	615.		4543.	2130.		228.	298.		80.	104.		148.	169.	
13	43.	66.		599.	527.		4317.	2000.		213.	272.		78.	111.		134.	139.	
14	43.	72.		557.	522.		3798.	1860.		211.	262.		84.	120.		122.	121.	
15	54.	93.		581.	545.		3304.	1670.		188.	222.		90.	129.		113.	107.	
16	72.	114.		559.	527.		2854.	1530.		169.	193.		83.	123.		103.	94.	
17	81.	139.		645.	563.		2572.	1500.		152.	167.		79.	114.		94.	80.	
18	100.	175.		785.	572.		2407.	1570.		137.	151.		78.	109.		87.	73.	
19	133.	220.		788.	595.		2238.	1490.		126.	141.		72.	105.		80.	66.	
20	186.	280.		915.	695.		2080.	1300.		118.	131.		67.	104.		74.	56.	
21	269.	316.		1173.	800.		1867.	1150.		107.	125.		62.	88.		68.	54.	
22	368.	379.		1482.	978.		1717.	1100.		99.	131.		74.	66.		64.	53.	
23	446.	407.		1711.	1140.		1564.	1110.		91.	133.		74.	66.		59.	51.	
24	456.	379.		1714.	1100.		1421.	1120.		84.	129.		173.	143.		55.	50.	
25	440.	301.		1566.	900.		1299.	1100.		78.	120.		201.	131.		52.	50.	
26	446.	255.		1338.	852.		1191.	1060.		73.	118.		187.	107.		49.	49.	
27	408.	228.		1260.	930.		1095.	1040.		67.	109.		167.	102.		46.	48.	
28	410.	255.		1262.	1020.		996.	978.		63.	102.		151.	97.		43.	49.	
29	451.	328.		1243.	1090.		898.	864.		96.	96.		136.	80.		41.	47.	
30	485.	361.		1242.	1090.		814.	780.		55.	84.		124.	53.		39.	50.	
31				1208.	1130.					55.	88.		112.	52.				

RANGO/MARTINEC MODEL VERSION KCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.
SUMMARY OF THE MODEL RUN FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/13/82

NASH-SUTCLIFFE GOODNESS OF FIT METHOD - NSKA-2 = 0.2359
ACTUAL SEASON VOLUME = 84540.000 CFS-DAYS
COMPUTED SEASON VOLUME = 112528.727 CFS-DAYS
SEASONAL DIFFERENCE IN PERCENT = 24.87

ORIGINAL PAGE 13
OF POOR QUALITY

**ORIGINAL PAGE 13
OF POOR QUALITY**

**Parabolic and Exponential
without Satellite Updating**

Rio Grande

ORIGINAL PAGE NO
OF POOR QUALITY

NUMBER OF ZONES = 3
APRIL 1 RUNOFF VOLUME = 700.0 * 1000 AF, MAY 1 RUNOFF VOLUME = 710.0 * 1000 AF

ZONE	FIFC1	FIFC2	ZEROC1	ZEROC2	FSCC1	FSCC2	FSCC3	ZSCC1	ZSCC2	ZSCC3
1	-133.03000	0.37631	-22.89360	0.69667	0.96695	-0.23520	-0.19350	0.70695	-5.90880	
2	-27.35000	0.26677	190.61000	0.36310	0.98222	-0.18120	-0.26680	0.68164	-6.06990	
3	27.82000	0.17725	227.39999	0.69930	0.97777	-0.28830	-0.16018	0.77865	-5.66900	
IZ, 50X ACDD, OX ACDD=	1	130.3870	471.7421							
IZ, 50X ACDD, OX ACDD=	2	159.1890	448.1110							
IZ, 50X ACDD, OX ACDD=	3	151.8950	723.9030							

RANGO/MART.NEC MODEL VERSION KCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/10/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 1

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.41	0.967	5.18	0.75	0.270	13.37	0.00	0.000	31.06	0.00	0.000	30.12	0.02	0.000	22.12	0.00	0.000
2	0.00	0.49	0.967	9.74	0.06	0.228	13.74	0.00	0.000	29.56	0.00	0.000	32.87	0.13	0.000	24.12	0.00	0.000
3	0.00	0.00	0.967	12.81	0.30	0.183	17.68	0.00	0.000	27.24	0.00	0.000	30.31	0.05	0.000	23.49	0.00	0.000
4	0.00	0.00	0.967	9.68	0.12	0.154	18.62	0.00	0.000	28.62	0.00	0.000	31.56	0.00	0.000	25.12	0.00	0.000
5	2.24	0.08	0.963	13.62	0.10	0.122	20.55	0.00	0.000	29.30	0.00	0.000	27.75	0.09	0.000	25.81	0.00	0.000
6	2.87	0.04	0.957	14.61	0.18	0.095	23.93	0.00	0.000	29.74	0.00	0.000	30.81	0.00	0.000	22.56	0.00	0.000
7	0.00	0.04	0.957	14.99	0.46	0.073	21.05	0.00	0.000	29.37	0.33	0.000	32.50	0.00	0.000	27.74	0.00	0.000
8	0.00	0.00	0.957	13.99	0.04	0.037	24.12	0.00	0.000	29.68	0.00	0.000	30.74	0.11	0.000	26.68	0.04	0.000
9	0.55	0.08	0.956	10.37	0.00	0.048	27.81	0.00	0.000	31.43	0.00	0.000	29.12	0.00	0.000	21.18	0.08	0.000
10	5.68	0.00	0.945	14.00	0.04	0.038	25.18	0.00	0.000	33.68	0.00	0.000	31.18	0.00	0.000	22.74	0.23	0.000
11	0.43	0.35	0.944	16.74	0.11	0.028	24.37	0.00	0.000	32.24	0.00	0.000	29.18	0.03	0.000	20.05	0.08	0.000
12	0.00	0.00	0.944	5.18	0.00	0.026	22.74	0.00	0.000	32.56	0.00	0.000	24.31	0.00	0.000	18.49	0.00	0.000
13	0.00	0.08	0.944	5.81	0.00	0.023	22.31	0.00	0.000	30.37	0.09	0.000	25.62	0.00	0.000	19.74	0.00	0.000
14	4.30	0.00	0.935	10.75	0.15	0.019	22.24	0.00	0.000	28.18	0.00	0.000	26.81	0.01	0.000	22.24	0.03	0.000
15	8.05	0.00	0.917	6.43	0.61	0.017	19.99	0.00	0.000	27.81	0.00	0.000	28.06	0.00	0.000	22.99	0.00	0.000
16	7.37	0.00	0.899	9.24	0.17	0.015	21.55	0.00	0.000	30.43	0.00	0.000	25.81	0.00	0.000	23.87	0.00	0.000
17	9.18	0.00	0.875	11.06	0.11	0.012	26.24	0.00	0.000	30.74	0.00	0.000	24.93	0.00	0.000	22.80	0.00	0.000
18	11.61	0.00	0.842	8.56	0.08	0.010	25.74	0.00	0.000	31.81	0.00	0.000	25.56	0.00	0.000	21.49	0.00	0.000
19	13.68	0.00	0.798	13.93	0.00	0.008	27.06	0.00	0.000	33.05	0.00	0.000	25.37	0.00	0.000	22.49	0.00	0.000
20	16.05	0.00	0.742	18.87	0.00	0.006	23.99	0.00	0.000	31.24	0.00	0.000	21.62	0.00	0.000	20.31	0.00	0.000
21	16.49	0.00	0.679	19.31	0.00	0.004	26.31	0.00	0.000	31.43	0.00	0.000	22.43	0.00	0.000	17.62	0.00	0.000
22	15.93	0.27	0.611	21.05	0.11	0.003	27.05	0.00	0.000	31.99	0.02	0.000	22.87	0.12	0.000	15.24	0.00	0.000
23	11.49	0.23	0.559	17.05	0.00	0.002	26.55	0.00	0.000	27.56	0.00	0.000	24.31	0.42	0.000	15.49	0.00	0.000
24	5.49	0.78	0.538	15.49	0.00	0.000	29.49	0.00	0.000	27.99	0.00	0.000	21.18	0.35	0.000	16.24	0.00	0.000
25	4.75	0.30	0.538	5.93	0.00	0.000	29.55	0.00	0.000	28.56	0.02	0.000	23.99	0.12	0.000	16.37	0.00	0.000
26	2.50	0.13	0.538	10.93	0.00	0.000	31.12	0.00	0.000	29.93	0.00	0.000	23.75	0.00	0.000	17.87	0.00	0.000
27	8.81	0.00	0.526	15.05	0.00	0.000	31.74	0.00	0.000	30.49	0.00	0.000	21.62	0.00	0.000	19.62	0.00	0.000
28	11.68	0.11	0.430	14.68	0.00	0.000	28.62	0.00	0.000	30.12	0.00	0.000	22.31	0.00	0.000	19.12	0.00	0.000
29	13.06	0.04	0.343	15.05	0.00	0.000	29.24	0.00	0.000	33.62	0.00	0.000	23.50	0.00	0.000	21.99	0.00	0.000
30	8.68	0.22	0.295	14.18	0.00	0.000	35.12	0.00	0.000	31.18	0.03	0.000	22.06	0.00	0.000	22.74	0.00	0.000
31				14.55	0.00	0.000				32.24	0.00	0.000	22.18	0.00	0.000			

ORIGINAL PAGE IS
OF POOR QUALITY

ORIGINAL PAGE 13
OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/10/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 2

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.98	0.982	1.29	0.36	0.854	5.59	0.00	0.064	25.61	0.00	0.000	23.38	0.02	0.000	15.38	0.00	0.000
2	0.00	0.58	0.982	2.48	0.09	0.847	6.48	0.00	0.056	24.11	0.00	0.000	27.16	0.13	0.000	19.45	0.00	0.000
3	0.00	0.00	0.982	6.32	0.72	0.830	9.64	0.00	0.046	19.98	0.00	0.000	30.05	0.05	0.000	17.27	0.00	0.000
4	0.00	0.00	0.982	5.79	0.10	0.814	11.88	0.00	0.036	21.88	0.00	0.000	26.11	0.00	0.000	18.38	0.00	0.000
5	0.00	0.18	0.982	6.88	0.02	0.793	13.04	0.00	0.027	20.75	0.00	0.000	24.64	0.09	0.000	19.32	0.00	0.000
6	0.00	0.09	0.982	5.80	0.36	0.775	14.85	0.00	0.020	22.48	0.00	0.000	26.40	0.00	0.000	17.11	0.00	0.000
7	0.00	0.09	0.982	8.77	0.66	0.746	13.54	0.00	0.015	23.66	0.33	0.000	28.35	0.00	0.000	22.56	0.00	0.000
8	0.00	0.00	0.982	7.77	0.01	0.720	19.45	0.00	0.010	23.72	0.00	0.000	25.56	0.11	0.000	22.79	0.04	0.000
9	0.00	0.18	0.982	6.74	0.00	0.696	23.40	0.00	0.006	24.43	0.00	0.000	24.45	0.00	0.000	17.29	0.08	0.000
10	0.00	0.00	0.982	9.85	0.09	0.659	19.22	0.00	0.004	27.72	0.00	0.000	27.29	0.00	0.000	17.56	0.23	0.000
11	0.00	0.47	0.982	11.56	0.27	0.613	18.66	0.00	0.003	27.06	0.00	0.000	23.22	0.03	0.000	12.54	0.08	0.000
12	0.00	0.00	0.982	1.29	0.00	0.607	15.48	0.00	0.002	27.11	0.00	0.000	19.90	0.00	0.000	12.27	0.00	0.000
13	0.00	0.18	0.982	0.00	0.00	0.607	15.82	0.00	0.000	24.66	0.09	0.000	20.95	0.00	0.000	14.56	0.00	0.000
14	0.00	0.00	0.982	7.64	0.36	0.575	14.98	0.00	0.000	22.22	0.00	0.000	20.32	0.01	0.000	17.06	0.03	0.000
15	0.54	0.00	0.982	1.51	0.43	0.569	11.69	0.00	0.000	21.32	0.00	0.000	22.61	0.00	0.000	16.77	0.00	0.000
16	0.00	0.00	0.982	4.06	0.11	0.551	14.04	0.00	0.000	23.43	0.00	0.000	23.48	0.00	0.000	18.16	0.00	0.000
17	1.14	0.00	0.980	7.69	0.27	0.534	18.98	0.00	0.000	23.48	0.00	0.000	20.01	0.00	0.000	14.25	0.00	0.000
18	2.80	0.00	0.977	3.11	0.18	0.534	18.48	0.00	0.000	25.32	0.00	0.000	20.11	0.00	0.000	15.27	0.00	0.000
19	5.64	0.00	0.970	6.93	0.00	0.508	21.61	0.00	0.000	25.54	0.00	0.000	17.59	0.00	0.000	16.27	0.00	0.000
20	8.54	0.00	0.957	11.09	0.00	0.493	15.69	0.00	0.000	26.06	0.00	0.000	14.88	0.00	0.000	13.82	0.00	0.000
21	10.27	0.00	0.940	12.82	0.00	0.308	19.82	0.00	0.000	26.51	0.00	0.000	15.43	0.00	0.000	10.88	0.00	0.000
22	8.93	0.63	0.924	13.54	0.27	0.232	19.54	0.00	0.000	23.69	0.02	0.000	15.09	0.12	0.000	7.98	0.00	0.000
23	5.27	0.54	0.914	9.54	0.00	0.190	19.04	0.00	0.000	22.11	0.00	0.000	17.82	0.42	0.000	9.27	0.00	0.000
24	0.00	0.63	0.914	7.19	0.00	0.163	21.19	0.00	0.000	21.77	0.00	0.000	13.14	0.35	0.000	8.98	0.00	0.000
25	5.79	0.72	0.901	0.00	0.00	0.143	22.04	0.00	0.000	25.19	0.02	0.000	15.69	0.12	0.000	10.66	0.00	0.000
26	0.42	0.19	0.900	3.93	0.00	0.150	24.38	0.00	0.000	25.01	0.00	0.000	20.64	0.00	0.000	14.24	0.00	0.000
27	2.32	0.00	0.895	7.54	0.00	0.128	24.48	0.00	0.000	24.27	0.00	0.000	16.95	0.00	0.000	14.95	0.00	0.000
28	5.72	0.27	0.882	6.64	0.00	0.111	21.88	0.00	0.000	25.45	0.00	0.000	17.90	0.00	0.000	12.38	0.00	0.000
29	7.61	0.09	0.864	7.54	0.00	0.095	24.06	0.00	0.000	31.03	0.00	0.000	19.35	0.00	0.000	15.77	0.00	0.000
30	2.72	0.29	0.857	6.14	0.00	0.084	30.45	0.00	0.000	25.22	0.03	0.000	18.69	0.00	0.000	15.48	0.00	0.000
31				7.04	0.00	0.072				22.91	0.00	0.000	18.29	0.00	0.000			

RANSO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/10/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 3

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	1.53	0.978	0.00	0.30	0.946	0.00	0.00	0.818	20.38	0.00	0.055	14.89	0.30	0.000	8.89	0.00	0.000
2	0.00	0.67	0.978	0.00	0.13	0.946	0.00	0.00	0.818	18.88	0.00	0.045	21.68	0.00	0.000	14.97	0.00	0.000
3	0.00	0.00	0.978	0.09	1.11	0.945	1.91	0.00	0.813	13.00	0.00	0.040	29.80	0.00	0.000	11.29	0.00	0.000
4	0.00	0.00	0.978	2.05	0.10	0.941	5.39	0.00	0.797	15.39	0.00	0.034	20.88	0.60	0.000	11.89	0.00	0.000
5	0.00	0.28	0.978	0.39	0.00	0.940	5.81	0.00	0.780	12.52	0.00	0.030	21.64	0.20	0.000	13.09	0.00	0.000
6	0.00	0.14	0.978	0.00	0.54	0.940	6.13	0.00	0.761	15.50	0.00	0.024	22.16	0.00	0.000	11.88	0.50	0.000
7	0.00	0.14	0.978	2.79	0.85	0.934	6.31	0.00	0.741	18.18	0.10	0.022	24.34	0.30	0.000	17.57	0.00	0.000
8	0.00	0.00	0.978	1.79	0.00	0.930	14.97	0.00	0.692	17.98	0.00	0.018	20.57	0.45	0.000	19.05	0.50	0.000
9	0.00	0.28	0.978	3.25	0.00	0.923	19.16	0.00	0.624	17.70	0.00	0.015	19.97	0.00	0.000	13.55	1.00	0.000
10	0.00	0.00	0.978	5.86	0.14	0.909	13.48	0.00	0.573	21.98	0.00	0.012	23.55	0.35	0.000	12.57	1.40	0.000
11	0.00	0.59	0.978	6.57	0.42	0.894	13.18	0.00	0.529	22.07	0.00	0.010	17.48	0.00	0.000	5.31	0.00	0.000
12	0.00	0.00	0.978	0.00	0.00	0.894	8.50	0.00	0.529	21.88	0.00	0.008	15.66	0.10	0.000	6.29	0.00	0.000
13	0.00	0.28	0.978	0.00	0.00	0.894	9.59	0.10	0.529	19.18	0.20	0.007	16.47	0.30	0.000	9.57	0.00	0.000
14	0.00	0.00	0.978	4.64	0.56	0.882	8.00	0.00	0.529	14.48	0.00	0.006	14.09	0.60	0.000	12.07	0.00	0.000
15	0.00	0.00	0.978	0.00	0.40	0.882	3.72	0.00	0.529	15.57	0.00	0.005	17.38	0.00	0.000	10.79	0.00	0.000
16	0.00	0.00	0.978	0.00	0.10	0.882	4.81	0.00	0.529	16.70	0.00	0.004	21.23	0.00	0.000	12.68	0.00	0.000
17	0.00	0.00	0.978	4.45	0.42	0.871	12.00	0.00	0.472	16.50	0.00	0.003	15.27	0.25	0.000	6.02	0.00	0.000
18	0.00	0.00	0.978	0.00	0.28	0.871	11.50	0.00	0.421	19.09	0.00	0.003	14.88	0.00	0.000	9.29	0.00	0.000
19	0.00	0.00	0.978	0.20	0.00	0.871	14.38	0.00	0.358	18.31	0.10	0.000	10.11	0.00	0.000	10.29	0.00	0.000
20	1.31	0.00	0.975	3.61	0.00	0.861	7.72	0.00	0.331	21.07	0.00	0.000	8.39	0.00	0.000	7.59	0.00	0.000
21	4.29	0.00	0.967	6.59	0.00	0.844	13.59	0.00	0.290	21.77	0.00	0.000	8.70	0.00	0.000	4.39	0.00	0.000
22	2.20	0.97	0.963	6.31	0.42	0.826	12.31	0.00	0.256	15.72	0.00	0.000	7.61	1.85	0.000	1.00	0.00	0.000
23	0.00	0.84	0.963	2.31	0.00	0.820	11.81	0.00	0.228	16.88	0.00	0.000	11.59	1.00	0.000	3.29	0.00	0.000
24	0.00	0.40	0.963	0.00	0.00	0.820	13.22	0.00	0.200	15.79	0.00	0.000	5.41	0.95	0.000	2.00	0.00	0.000
25	5.80	1.11	0.951	0.00	0.00	0.820	14.81	0.00	0.173	21.95	0.00	0.000	7.72	0.00	0.000	5.18	0.00	0.000
26	0.00	0.25	0.951	0.00	0.00	0.820	17.89	0.00	0.145	20.27	0.00	0.000	17.64	0.00	0.000	10.75	0.00	0.000
27	0.00	0.00	0.951	0.31	0.00	0.819	17.50	0.00	0.122	18.29	0.00	0.000	12.47	0.00	0.000	10.47	0.00	0.000
28	0.00	0.42	0.951	0.00	0.00	0.819	15.39	0.00	0.104	20.97	0.00	0.000	13.66	0.00	0.000	5.89	0.00	0.000
29	2.38	0.14	0.946	0.31	0.00	0.818	19.07	0.00	0.086	28.54	0.00	0.000	15.36	0.00	0.000	9.79	0.00	0.000
30	0.00	0.35	0.946	0.00	0.00	0.818	25.97	0.00	0.067	19.48	0.00	0.000	15.25	0.00	0.000	8.50	0.00	0.000
31				0.00						13.93	0.20	0.000	14.34					

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/10/82

WATERSHED MELT AND RUNOFF COEFFICIENTS

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	1	15	30	1	15	30	1	15	30	1	15	30	1	15	30	1	15	30
DATA FOR ZONE 1:																		
MELT FACTORS	0.050	0.050		0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070
RUNOFF COEF.	0.700	0.300		0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150
PREC. METHOD	0	0		0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
DATA FOR ZONE 2:																		
MELT FACTORS	0.030	0.030		0.030	0.030	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
RUNOFF COEF.	0.750	0.650		0.650	0.650	0.650	0.650	0.650	0.200	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150
PREC. METHOD	0	0		0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
DATA FOR ZONE 3:																		
MELT FACTORS	0.030	0.030		0.030	0.070	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
RUNOFF COEF.	0.740	0.800		0.800	0.800	0.300	0.300	0.300	0.300	0.200	0.200	0.180	0.180	0.180	0.180	0.180	0.180	0.180
PREC. METHOD	0	0		0	0	1	1	1	1	1	1	1	1	1	1	1	1	1

NOTE: PREC. METHOD:
0 = PREC. RUNOFF COMPUTED FOR NON-SNOWCOVERED AREAS ONLY
1 = PREC. RUNOFF COMPUTED FOR ALL AREAS

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.
THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/10/82

COMPUTED DAILY RUNOFF FOR ZONE 1

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	783.7	0.0	0.0	24.3	0.0
2	0.0	244.8	0.0	0.0	157.8	0.0
3	0.0	496.4	0.0	0.0	60.7	0.0
4	0.0	250.2	0.0	0.0	0.0	0.0
5	627.8	247.7	0.0	0.0	109.3	0.0
6	788.0	315.4	0.0	0.0	0.0	0.0
7	0.0	610.7	0.0	400.6	0.0	0.0
8	0.0	113.9	0.0	0.0	133.5	0.0
9	149.0	42.2	0.0	0.0	0.0	48.6
10	1520.6	91.5	0.0	0.0	0.0	97.1
11	115.0	169.8	0.0	0.0	36.4	279.2
12	0.0	11.3	0.0	0.0	0.0	97.1
13	0.0	11.5	0.0	109.3	0.0	0.0
14	1138.9	194.2	0.0	0.0	12.1	0.0
15	2090.7	737.2	0.0	0.0	0.0	36.4
16	804.2	218.0	0.0	0.0	0.0	0.0
17	974.9	145.0	0.0	0.0	0.0	0.0
18	1186.1	104.8	0.0	0.0	0.0	0.0
19	1326.1	9.8	0.0	0.0	0.0	0.0
20	1446.7	9.5	0.0	0.0	0.0	0.0
21	1359.0	7.0	0.0	0.0	0.0	0.0
22	1437.3	138.8	0.0	24.3	0.0	0.0
23	1026.3	3.2	0.0	0.0	145.7	0.0
24	1233.3	0.0	0.0	0.0	509.9	0.0
25	646.7	0.0	0.0	24.3	145.7	0.0
26	309.1	0.0	0.0	0.0	0.0	0.0
27	562.6	0.0	0.0	0.0	0.0	0.0
28	761.6	0.0	0.0	0.0	0.0	0.0
29	607.3	0.0	0.0	0.0	0.0	0.0
30	687.4	0.0	0.0	36.4	0.0	0.0
31		0.0	0.0	0.0	0.0	0.0

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE --- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/10/82

COMPUTED DAILY RUNOFF FOR ZONE 2

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	286.4	435.3	0.0	40.0	0.0
2	0.0	764.3	440.4	0.0	260.1	0.0
3	0.0	2705.1	535.2	0.0	100.0	0.0
4	0.0	1574.2	514.0	0.0	0.0	0.0
5	0.0	1454.9	429.1	0.0	180.0	0.0
6	0.0	1871.1	357.8	0.0	0.0	0.0
7	0.0	3153.1	245.6	660.2	0.0	0.0
8	0.0	1478.9	234.5	0.0	220.1	0.0
9	0.0	1219.4	172.7	0.0	0.0	80.0
10	0.0	1953.6	94.7	0.0	0.0	160.0
11	0.0	2748.5	62.2	0.0	60.0	460.1
12	0.0	203.7	37.3	0.0	0.0	160.0
13	0.0	0.0	0.0	180.0	0.0	0.0
14	0.0	2468.8	0.0	0.0	20.0	0.0
15	159.1	223.3	0.0	0.0	0.0	60.0
16	0.0	4816.9	0.0	0.0	0.0	0.0
17	290.6	6076.1	0.0	0.0	0.0	0.0
18	711.4	2743.2	0.0	0.0	0.0	0.0
19	1422.2	4273.4	0.0	0.0	0.0	0.0
20	2126.2	5418.6	0.0	0.0	0.0	0.0
21	2511.9	4786.3	0.0	0.0	0.0	0.0
22	2560.9	5603.4	0.0	40.0	0.0	0.0
23	1656.8	2194.3	0.0	0.0	240.1	0.0
24	0.0	1422.1	0.0	0.0	840.2	0.0
25	1973.0	0.0	0.0	40.0	700.2	0.0
26	98.4	715.8	0.0	0.0	240.1	0.0
27	540.2	1172.3	0.0	0.0	0.0	0.0
28	1588.0	898.1	0.0	0.0	0.0	0.0
29	1815.8	870.6	0.0	0.0	0.0	0.0
30	966.0	623.2	0.0	60.0	0.0	0.0
31		616.4	0.0	0.0	0.0	0.0

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RANGO/MARTINEC MODEL VERSION KCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/10/82

COMPUTED DAILY RUNOFF FOR ZONE 3

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	0.0	0.0	438.3	755.4	0.0
2	0.0	0.0	0.0	336.8	0.0	0.0
3	0.0	28.7	2597.3	203.9	0.0	0.0
4	0.0	717.4	7188.6	207.2	1518.8	0.0
5	0.0	123.8	7580.6	148.9	506.3	0.0
6	0.0	0.0	7805.7	158.1	0.0	1265.7
7	0.0	1509.0	7825.2	436.1	759.4	0.0
8	0.0	562.0	17329.4	128.1	1139.1	1265.7
9	0.0	1012.4	20010.6	105.9	0.0	2531.3
10	0.0	1941.3	12935.8	105.7	886.0	3543.8
11	0.0	2483.9	11674.3	85.3	0.0	0.0
12	0.0	0.0	7528.9	68.1	253.1	0.0
13	0.0	0.0	9057.1	611.9	759.4	0.0
14	0.0	2123.3	7086.1	36.0	1518.8	0.0
15	0.0	0.0	3295.0	28.4	0.0	0.0
16	0.0	0.0	2128.9	24.0	0.0	0.0
17	0.0	4113.9	3343.5	20.1	432.8	0.0
18	0.0	0.0	2859.1	19.3	0.0	0.0
19	0.0	157.5	3462.1	253.1	0.0	0.0
20	431.2	2843.0	1511.5	0.0	0.0	0.0
21	1400.0	4733.2	2325.5	0.0	0.0	0.0
22	1123.5	4926.9	1864.6	0.0	4482.9	0.0
23	0.0	1491.3	1591.2	0.0	2531.3	0.0
24	0.0	0.0	1562.5	0.0	2404.8	0.0
25	2477.0	0.0	1511.5	0.0	0.0	0.0
26	0.0	0.0	1529.2	0.0	0.0	0.0
27	0.0	199.9	1257.6	0.0	0.0	0.0
28	0.0	0.0	949.5	0.0	0.0	0.0
29	845.2	199.7	974.0	0.0	0.0	0.0
30	0.0	0.0	1025.4	0.0	0.0	0.0
31		0.0		506.3	7.0	

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.
THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/10/82

DAY	STREAMFLOW FOR APRIL		STREAMFLOW FOR MAY		STREAMFLOW FOR JUNE		STREAMFLOW FOR JULY		STREAMFLOW FOR AUGUST		STREAMFLOW FOR SEPTEMBER	
	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	ACTUAL CFS
1	217.	195.	1817.	1213.	2603.	4465.	2834.	3129.	409.	560.	452.	346.
2	207.	243.	1755.	1093.	2414.	4358.	2620.	3010.	428.	509.	610.	380.
3	198.	225.	1731.	1097.	2291.	4633.	2419.	2826.	424.	615.	572.	349.
4	189.	247.	1841.	1248.	2440.	5102.	2229.	2559.	425.	529.	536.	389.
5	186.	266.	1886.	1414.	2898.	5709.	2057.	2268.	479.	496.	503.	363.
6	207.	283.	1887.	1533.	3355.	6094.	1898.	2203.	488.	470.	488.	312.
7	226.	288.	1702.	1948.	3792.	5907.	1778.	1938.	468.	457.	520.	340.
8	215.	255.	1184.	2262.	4367.	5811.	1733.	2049.	494.	476.	505.	355.
9	207.	284.	2183.	2310.	5676.	6981.	1603.	1866.	536.	490.	575.	361.
10	217.	306.	2220.	2052.	6978.	7633.	1485.	1755.	514.	434.	732.	423.
11	264.	334.	2393.	2011.	7574.	7674.	1377.	1648.	527.	416.	914.	1641.
12	255.	288.	2562.	1889.	7920.	7602.	1278.	1474.	503.	397.	864.	974.
13	243.	288.	2355.	1581.	7915.	7271.	1199.	1510.	494.	372.	805.	743.
14	242.	305.	2236.	1528.	7993.	6575.	1164.	1456.	519.	447.	751.	644.
15	296.	375.	2387.	1569.	7818.	6023.	1080.	1323.	563.	493.	706.	595.
16	381.	430.	2335.	1499.	7320.	5564.	1004.	1171.	528.	491.	640.	536.
17	409.	483.	2656.	1529.	6808.	5322.	934.	989.	503.	422.	617.	449.
18	465.	554.	3196.	1554.	4443.	5510.	869.	909.	504.	396.	578.	436.
19	559.	684.	3193.	1574.	4091.	5396.	814.	842.	473.	366.	542.	404.
20	710.	853.	3375.	1923.	5787.	5205.	772.	910.	445.	393.	507.	370.
21	944.	983.	3845.	2522.	5376.	4733.	720.	897.	420.	323.	478.	359.
22	1247.	1105.	4396.	3443.	5066.	4519.	674.	770.	453.	262.	450.	353.
23	1501.	1458.	4862.	4257.	4748.	4505.	633.	729.	709.	431.	424.	333.
24	1571.	1240.	4704.	4555.	4442.	4552.	593.	811.	913.	841.	399.	325.
25	1605.	995.	4360.	3811.	4165.	4358.	556.	784.	1052.	743.	377.	320.
26	1807.	903.	3958.	3368.	3915.	4202.	525.	701.	998.	621.	356.	317.
27	1705.	858.	3666.	3382.	3686.	4107.	493.	679.	927.	541.	337.	298.
28	1677.	959.	3445.	3636.	3455.	3903.	444.	582.	862.	486.	319.	288.
29	1745.	1171.	3215.	3959.	3226.	3467.	436.	510.	802.	453.	302.	293.
30	1842.	1311.	3013.	4111.	3023.	3134.	412.	729.	748.	334.	286.	300.
31			2799.	4292.			399.	426.	698.	335.		

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

SUMMARY OF THE MODEL RUN FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/10/82

NASH-SUTCLIFFE GOODNESS OF FIT METHOD - NSR#2 = 0.8674

ACTUAL SEASON VOLUME = 324717.000 CFS-DAYS

COMPUTED SEASON VOLUME = 331258.156 CFS-DAYS

SEASONAL DIFFERENCE IN PERCENT = 1.97

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PARABOLIC AND EXPONENTIAL ESTIMATE OF SNOW COVER METHOD WITH SATELLITE UPDATE ROUTINE
NUMBER OF ZONES = 3
APRIL 1 RUNOFF VOLUME = 190.0 * 1000 AF, MAY 1 PINDOFF VOLUME = 190.0 * 1000 AF

ZONE 1	FIFC1	FIFC2	ZEROC1	ZEROC2	FSC1	FSCC2	FSCC3	ZSCC1	ZSCC2
	-124.36000	1.91070	85.20000	2.62630	0.98676	-0.32955	-0.14935	0.59310	-3.72960
ZONE 2	FIFC1	FIFC2	ZEROC1	ZEROC2	FSC1	FSCC2	FSCC3	ZSCC1	ZSCC2
	19.50000	0.70610	280.57001	1.46780	0.95503	-0.20650	-0.21400	0.47954	-3.69190
ZONE 3	FIFC1	FIFC2	ZEROC1	ZEROC2	FSC1	FSCC2	FSCC3	ZSCC1	ZSCC2
	-0.71200	1.67500	142.42000	3.14010	0.91217	-0.38640	-0.06707	0.54424	-3.74060
IZ.50Z ACDD.OZ ACDD=	1	238.6730	584.1970						
IZ.50Z ACDD.OZ ACDD=	2	153.6390	597.4520						
IZ.50Z ACDD.OZ ACDD=	3	317.5380	759.0390						

RC-180/MARTIMEC MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/10/82
DAILY CLIMATOLOGICAL DATA FOR ZONE 1

DAY	APRIL			MAY			JUNE			JUL			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.44	0.987	4.98	0.73	0.658	12.95	0.00	0.018	30.77	0.00	0.000	29.76	0.02	0.000	21.76	0.00	0.000
2	0.00	0.49	0.987	9.34	0.06	0.634	13.34	0.00	0.015	29.27	0.00	0.000	32.56	0.13	0.000	23.87	0.00	0.000
3	0.00	0.00	0.987	12.46	0.32	0.606	17.25	0.00	0.000	26.84	0.00	0.000	30.30	0.05	0.000	23.16	0.00	0.000
4	0.00	0.00	0.987	9.48	0.12	0.583	18.24	0.00	0.000	28.26	0.00	0.000	31.27	0.00	0.000	24.76	0.00	0.000
5	1.86	0.08	0.984	13.26	0.10	0.549	20.15	0.00	0.000	28.85	0.00	0.000	27.58	0.09	0.000	25.46	0.00	0.000
6	2.45	0.04	0.962	14.15	0.19	0.513	23.44	0.00	0.000	29.36	0.00	0.000	30.57	0.00	0.000	22.27	0.00	0.000
7	0.00	0.04	0.981	14.66	0.47	0.508	20.65	0.00	0.000	29.06	0.33	0.000	32.27	0.00	0.000	27.47	0.00	0.000
8	0.00	0.00	0.981	13.46	0.04	0.446	23.87	0.00	0.000	29.36	0.00	0.000	30.47	0.11	0.000	26.48	0.04	0.000
9	0.15	0.08	0.981	10.18	0.00	0.400	27.57	0.00	0.000	31.06	0.00	0.000	28.87	0.00	0.000	20.98	0.08	0.000
10	5.25	0.00	0.973	13.77	0.04	0.344	24.86	0.00	0.000	33.36	0.00	0.000	20.98	0.00	0.000	22.47	0.23	0.000
11	0.06	0.34	0.973	16.47	0.12	0.288	24.06	0.00	0.000	31.97	0.00	0.000	28.86	0.03	0.000	19.65	0.08	0.000
12	0.00	0.00	0.973	4.98	0.00	0.273	22.36	0.00	0.000	32.27	0.00	0.000	24.07	0.00	0.000	18.16	0.00	0.000
13	0.00	0.00	0.973	5.46	0.00	0.258	21.96	0.00	0.000	30.06	0.09	0.000	25.37	0.00	0.000	19.47	0.00	0.000
14	3.73	0.00	0.968	10.58	0.16	0.230	21.86	0.00	0.000	27.86	0.00	0.000	26.46	0.01	0.000	21.97	0.03	0.000
15	7.65	0.00	0.956	6.17	0.40	0.215	19.55	0.00	0.000	30.06	0.00	0.000	27.77	0.00	0.000	22.46	0.00	0.000
16	6.95	0.00	0.946	8.97	0.17	0.195	21.15	0.00	0.000	30.06	0.00	0.000	25.65	0.00	0.000	23.56	0.00	0.000
17	8.75	0.00	0.932	10.28	0.12	0.173	25.84	0.00	0.000	30.36	0.00	0.000	24.67	0.00	0.000	22.35	0.00	0.000
18	11.15	0.00	0.914	8.27	0.08	0.159	25.34	0.00	0.000	31.46	0.00	0.000	25.27	0.00	0.000	21.16	0.00	0.000
19	13.25	0.00	0.892	13.56	0.00	0.137	26.77	0.00	0.000	32.65	0.00	0.000	21.95	0.00	0.000	22.16	0.00	0.000
20	15.65	0.00	0.875	18.45	0.00	0.112	23.55	0.00	0.000	30.97	0.00	0.000	21.26	0.00	0.000	19.96	0.00	0.000
21	16.16	0.00	0.836	18.96	0.00	0.092	25.96	0.00	0.000	31.17	0.00	0.000	22.06	0.00	0.000	17.26	0.00	0.000
22	15.56	0.29	0.806	20.65	0.12	0.073	26.65	0.00	0.000	31.55	0.02	0.000	22.45	0.12	0.000	14.86	0.00	0.000
23	11.16	0.24	0.784	16.65	0.00	0.061	26.15	0.00	0.000	27.27	0.00	0.000	23.96	0.42	0.000	15.16	0.00	0.000
24	5.16	0.77	0.773	15.05	0.00	0.032	29.05	0.00	0.000	27.66	0.00	0.000	20.75	0.33	0.000	15.86	0.00	0.000
25	4.81	0.32	0.763	5.56	0.00	0.049	29.15	0.00	0.000	28.38	0.02	0.000	23.55	0.12	0.000	16.06	0.00	0.000
26	2.39	0.13	0.759	10.56	0.00	0.044	30.76	0.00	0.000	29.67	0.00	0.000	23.58	0.00	0.000	17.68	0.00	0.000
27	8.46	0.00	0.741	14.65	0.00	0.037	31.36	0.00	0.000	30.16	0.00	0.000	21.37	0.00	0.000	19.37	0.00	0.000
28	11.34	0.12	0.716	14.25	0.00	0.032	28.26	0.00	0.000	29.87	0.00	0.000	22.07	0.00	0.000	18.76	0.00	0.000
29	12.77	0.04	0.688	14.65	0.00	0.027	28.97	0.00	0.000	23.48	0.00	0.000	23.27	0.00	0.000	21.66	0.00	0.000
30	8.36	0.22	0.669	13.75	0.00	0.024	34.87	0.00	0.000	30.86	0.03	0.000	21.88	0.00	0.000	22.36	0.00	0.000
31				14.15	0.00	0.020				31.74	0.00	0.000	21.98	0.00	0.000			

ORIGINAL PAGE 13
OF POOR QUALITY

WANGO/MARTINEC MODEL VERSION KCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/10/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 2

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.97	0.955	1.40	0.39	0.813	5.79	0.00	0.169	25.76	0.00	0.000	23.55	0.02	0.000	15.55	0.00	0.000
2	0.00	0.58	0.955	2.67	0.09	0.806	6.67	0.00	0.160	24.26	0.00	0.000	27.32	0.13	0.000	19.58	0.00	0.000
3	0.00	0.00	0.955	6.50	0.70	0.788	9.85	0.00	0.147	20.17	0.00	0.000	30.06	0.05	0.000	17.44	0.00	0.000
4	0.00	0.00	0.955	5.90	0.10	0.771	12.05	0.00	0.133	22.05	0.00	0.000	28.26	0.00	0.000	18.55	0.00	0.000
5	0.00	0.18	0.955	7.05	0.02	0.750	13.23	0.00	0.119	20.97	0.00	0.000	24.72	0.09	0.000	19.49	0.00	0.000
6	0.00	0.09	0.955	6.03	0.36	0.732	15.09	0.00	0.105	22.67	0.00	0.000	26.52	0.00	0.000	17.26	0.00	0.000
7	0.00	0.09	0.955	8.94	0.65	0.703	13.73	0.00	0.094	23.82	0.33	0.000	28.46	0.00	0.000	22.70	0.00	0.000
8	0.00	0.00	0.955	7.94	0.01	0.676	19.56	0.00	0.080	21.88	0.00	0.000	25.70	0.11	0.000	22.90	0.04	0.000
9	0.00	0.18	0.955	6.84	0.00	0.652	23.52	0.00	0.066	14.61	0.00	0.000	24.58	0.00	0.000	17.40	0.08	0.000
10	0.00	0.00	0.955	9.96	0.09	0.615	19.38	0.00	0.056	27.88	0.00	0.000	27.40	0.00	0.000	17.70	0.23	0.000
11	0.00	0.47	0.955	11.70	0.26	0.570	18.82	0.00	0.048	27.20	0.00	0.000	23.38	0.03	0.000	12.73	0.08	0.000
12	0.00	0.00	0.955	1.40	0.00	0.565	15.67	0.00	0.042	27.26	0.00	0.000	20.22	0.00	0.000	12.44	0.00	0.000
13	0.00	0.13	0.955	0.00	0.00	0.565	15.99	0.00	0.037	24.82	0.09	0.000	21.08	0.00	0.000	14.70	0.00	0.000
14	0.00	0.00	0.955	7.72	0.35	0.535	15.17	0.00	0.032	22.78	0.00	0.000	20.50	0.01	0.000	17.20	0.03	0.000
15	0.73	0.00	0.954	1.64	0.44	0.472	11.91	0.00	0.029	21.50	0.00	0.000	22.76	0.00	0.000	16.94	0.00	0.000
16	0.00	0.00	0.954	4.20	0.11	0.456	14.23	0.00	0.026	23.61	0.00	0.000	23.54	0.00	0.000	18.32	0.00	0.000
17	1.35	0.00	0.952	7.78	0.26	0.427	19.17	0.00	0.022	23.67	0.00	0.000	20.14	0.00	0.000	14.47	0.00	0.000
18	3.03	0.00	0.948	3.26	0.18	0.416	18.67	0.00	0.019	25.50	0.00	0.000	20.26	0.00	0.000	15.44	0.00	0.000
19	5.85	0.00	0.939	7.11	0.00	0.392	21.76	0.00	0.016	25.73	0.00	0.000	17.79	0.00	0.000	16.44	0.00	0.000
20	8.73	0.00	0.925	11.29	0.00	0.357	15.91	0.00	0.014	26.20	0.00	0.000	15.05	0.00	0.000	14.00	0.00	0.000
21	10.44	0.00	0.906	12.99	0.00	0.350	20.00	0.00	0.000	26.64	0.00	0.000	15.61	0.00	0.000	11.05	0.00	0.000
22	9.11	0.62	0.888	13.73	0.26	0.286	19.73	0.00	0.000	27.91	0.02	0.000	15.29	0.12	0.000	8.17	0.00	0.000
23	5.44	0.53	0.877	9.73	0.00	0.263	19.23	0.00	0.000	22.26	0.00	0.000	17.99	0.42	0.000	9.44	0.00	0.000
24	0.00	0.63	0.877	7.41	0.00	0.248	21.41	0.00	0.000	21.94	0.00	0.000	13.35	0.35	0.000	9.17	0.00	0.000
25	5.76	0.70	0.864	0.00	0.00	0.248	22.23	0.00	0.000	25.28	0.02	0.000	15.91	0.12	0.000	10.82	0.00	0.000
26	0.48	0.19	0.863	4.11	0.00	0.239	24.55	0.00	0.000	25.14	0.00	0.000	20.72	0.00	0.000	14.34	0.01	0.000
27	2.49	0.00	0.857	7.73	0.00	0.224	24.67	0.00	0.000	24.44	0.00	0.000	17.08	0.00	0.000	15.08	0.00	0.000
28	5.86	0.24	0.843	6.85	0.00	0.212	22.05	0.00	0.000	25.58	0.00	0.000	18.02	0.00	0.000	12.55	0.00	0.000
29	7.76	0.09	0.824	7.73	0.00	0.199	24.20	0.00	0.000	31.10	0.00	0.000	19.46	0.00	0.000	15.94	0.00	0.000
30	2.88	0.28	0.817	6.35	0.00	0.189	30.58	0.00	0.000	25.38	0.03	0.000	18.78	0.00	0.000	15.67	0.00	0.000
31				7.23	0.00	0.178				23.15	0.00	0.000	18.40	0.00	0.000			

RANBO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/10/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 3

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	1.45	0.982	0.00	0.30	0.964	0.00	0.00	0.878	21.15	0.00	0.159	17.85	0.30	0.000	9.85	0.00	0.000
2	0.00	0.66	0.982	0.00	0.12	0.964	0.53	0.00	0.877	19.65	0.00	0.134	22.49	0.00	0.000	15.63	0.00	0.000
3	0.00	0.00	0.982	1.01	1.06	0.963	3.05	0.00	0.873	14.03	0.00	0.117	29.84	0.00	0.000	12.17	0.00	0.000
4	0.00	0.00	0.982	2.61	0.10	0.959	6.35	0.00	0.865	16.35	0.00	0.104	21.65	0.60	0.000	12.85	0.00	0.000
5	0.00	0.26	0.982	1.35	0.00	0.958	6.87	0.00	0.856	13.73	0.00	0.092	22.09	0.20	0.000	14.01	0.09	0.000
6	0.00	0.13	0.982	0.00	0.51	0.958	7.42	0.00	0.845	16.53	0.00	0.080	22.79	0.00	0.000	12.65	0.50	0.000
7	0.00	0.13	0.982	3.67	0.82	0.953	7.37	0.00	0.835	18.99	0.10	0.068	24.95	0.30	0.000	18.31	0.00	0.000
8	0.00	0.00	0.982	2.67	0.00	0.950	15.63	0.00	0.814	18.83	0.00	0.058	21.31	0.45	0.000	19.61	0.50	0.000
9	0.00	0.26	0.982	3.77	0.00	0.945	19.79	0.00	0.786	18.69	0.00	0.050	20.63	0.00	0.000	14.11	1.00	0.000
10	0.00	0.00	0.982	6.45	0.13	0.937	14.33	0.00	0.766	22.83	0.00	0.041	24.11	0.35	0.000	13.31	1.40	0.000
11	0.00	0.58	0.982	7.31	0.40	0.928	13.99	0.00	0.746	22.81	0.00	0.034	18.33	0.00	0.000	6.37	0.00	0.000
12	0.00	0.00	0.982	0.00	0.00	0.928	9.53	0.00	0.732	22.65	0.00	0.028	16.29	0.10	0.000	7.17	0.00	0.000
13	0.00	0.26	0.982	0.00	0.00	0.928	10.51	0.10	0.716	19.99	0.20	0.024	17.13	0.30	0.000	10.31	0.00	0.000
14	0.00	0.00	0.982	5.09	0.53	0.921	9.03	0.00	0.703	17.33	0.00	0.020	15.01	0.60	0.000	12.81	0.00	0.000
15	0.00	0.00	0.982	0.00	0.40	0.921	4.89	0.00	0.695	16.01	0.00	0.018	18.15	0.00	0.000	11.67	0.00	0.000
16	0.00	0.00	0.982	0.00	0.10	0.921	7.87	0.00	0.684	17.69	0.00	0.015	21.56	0.00	0.000	13.49	0.00	0.000
17	0.00	0.00	0.982	4.93	0.40	0.915	13.03	0.00	0.664	17.53	0.00	0.013	15.97	0.25	0.000	7.23	0.00	0.000
18	0.00	0.00	0.982	0.00	0.26	0.915	12.53	0.00	0.645	20.01	0.00	0.000	15.65	0.00	0.000	10.17	0.00	0.000
19	0.00	0.06	0.982	1.19	0.00	0.913	17.15	0.00	0.618	19.37	0.10	0.000	11.21	0.00	0.000	11.17	0.00	0.000
20	2.37	0.00	0.979	4.71	0.00	0.907	8.89	0.00	0.604	21.81	0.00	0.000	9.35	0.00	0.000	8.51	0.00	0.000
21	5.17	0.00	0.973	7.51	0.00	0.897	14.51	0.00	0.581	22.47	0.00	0.000	9.69	0.00	0.000	5.35	0.00	0.000
22	3.19	0.92	0.969	7.37	0.40	0.888	13.37	0.00	0.559	16.89	0.00	0.000	8.71	1.85	0.000	2.03	0.00	0.000
23	0.17	0.79	0.969	3.37	0.00	0.883	12.87	0.00	0.539	17.65	0.00	0.000	12.51	1.00	0.000	4.17	0.00	0.000
24	0.00	0.60	0.969	0.39	0.00	0.883	14.39	0.00	0.529	16.67	0.00	0.000	6.55	0.95	0.000	3.03	0.00	0.000
25	0.00	1.06	0.969	0.00	0.00	0.883	15.87	0.00	0.443	22.43	0.00	0.000	8.89	0.00	0.000	5.99	0.00	0.000
26	0.00	0.24	0.969	0.00	0.00	0.883	18.85	0.00	0.378	20.97	0.00	0.000	18.09	0.00	0.000	11.27	0.00	0.000
27	0.00	0.00	0.969	1.37	0.00	0.881	18.53	0.00	0.323	19.17	0.00	0.000	13.13	0.00	0.000	11.13	0.00	0.000
28	0.83	0.40	0.968	0.05	0.00	0.881	16.35	0.00	0.281	21.63	0.00	0.000	14.29	0.00	0.000	6.85	0.00	0.000
29	3.15	0.13	0.964	1.37	0.00	0.879	19.81	0.00	0.238	28.90	0.00	0.000	15.95	0.00	0.000	10.67	0.00	0.000
30	0.00	0.34	0.964	0.00	0.00	0.879	26.63	0.00	0.190	20.33	0.00	0.000	15.77	0.00	0.000	9.53	0.00	0.000
31				0.87	0.00	0.878				15.26	0.20	0.000	14.95	0.00	0.000			

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RANCO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/10/82

WATERSHED MELT AND RUNOFF COEFFICIENTS

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	1	15	30	1	15	30	1	15	30	1	15	30	1	15	30	1	15	30
DATA FOR ZONE 1:																		
MELT FACTORS	0.050	0.050	0.050	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070
RUNOFF COEF.	0.750	0.400	0.400	0.250	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180
PREC. METHOD	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
DATA FOR ZONE 2:																		
MELT FACTORS	0.030	0.030	0.030	0.030	0.100	0.100	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
RUNOFF COEF.	0.700	0.700	0.700	0.650	0.600	0.600	0.500	0.450	0.450	0.200	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180
PREC. METHOD	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
DATA FOR ZONE 3:																		
MELT FACTORS	0.030	0.030	0.030	0.040	0.100	0.100	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160
RUNOFF COEF.	0.850	0.850	0.850	0.850	0.850	0.850	0.800	0.800	0.800	0.600	0.300	0.300	0.220	0.220	0.220	0.220	0.220	0.220
PREC. METHOD	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1

NOTE: PREC. METHOD:

- 0 = PREC. RUNOFF COMPUTED FOR NON-SNOWCOVERED AREAS ONLY
- 1 = PREC. RUNOFF COMPUTED FOR ALL AREAS

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/10/82

COMPUTED DAILY RUNOFF FOR ZONE 1

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	154.6	3.7	0.0	4.6	0.0
2	0.0	141.5	3.3	0.0	30.2	0.0
3	0.0	211.2	0.0	0.0	11.6	0.0
4	0.0	140.9	0.0	0.0	0.0	0.0
5	88.6	179.1	0.0	0.0	20.9	0.0
6	117.0	193.8	0.0	0.0	0.0	0.0
7	0.0	242.8	0.0	76.7	0.0	0.0
8	0.0	144.7	0.0	0.0	25.6	9.3
9	7.1	91.9	0.0	0.0	0.0	18.6
10	247.3	115.6	0.0	0.0	0.0	53.4
11	2.8	134.8	0.0	0.0	7.0	18.6
12	0.0	30.7	0.0	0.0	0.0	0.0
13	0.0	31.8	0.0	20.9	0.0	0.0
14	174.7	94.7	0.0	0.0	2.3	7.0
15	354.1	181.9	0.0	0.0	0.0	0.0
16	169.7	68.0	0.0	0.0	0.0	0.0
17	210.6	58.6	0.0	0.0	0.0	0.0
18	263.2	39.9	0.0	0.0	0.0	0.0
19	305.2	30.2	0.0	0.0	0.0	0.0
20	349.5	33.7	0.0	0.0	0.0	0.0
21	348.5	28.2	0.0	0.0	0.0	0.0
22	352.7	52.5	0.0	4.6	27.9	0.0
23	252.6	16.6	0.0	0.0	97.6	0.0
24	193.1	12.7	0.0	0.0	81.3	0.0
25	133.9	4.4	0.0	4.6	27.9	0.0
26	63.0	7.5	0.0	0.0	0.0	0.0
27	161.8	8.9	0.0	0.0	0.0	0.0
28	227.6	7.4	0.0	0.0	0.0	0.0
29	233.3	6.5	0.0	0.0	0.0	0.0
30	182.0	5.3	0.0	7.0	0.0	0.0
31		4.7		0.0	0.0	

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OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION KCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/10/82

COMPUTED DAILY RUNOFF FOR ZONE 2

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	62.1	191.7	0.0	10.1	0.0
2	0.0	177.3	208.9	0.0	45.4	0.0
3	0.0	624.1	284.3	0.0	25.2	0.0
4	0.0	363.3	314.6	0.0	0.0	0.0
5	0.0	304.2	309.4	0.0	45.3	0.0
6	0.0	416.2	311.3	0.0	0.0	0.0
7	0.0	693.8	252.7	184.6	0.0	0.0
8	0.0	298.6	306.2	0.0	55.4	0.0
9	0.0	243.2	302.4	0.0	0.0	20.1
10	0.0	397.1	212.1	0.0	0.0	40.3
11	0.0	566.9	176.1	0.0	15.1	115.8
12	0.0	43.1	128.7	0.0	0.0	40.3
13	0.0	0.0	115.0	50.3	0.0	0.0
14	0.0	521.2	96.1	0.0	5.0	15.1
15	40.9	42.2	68.4	0.0	0.0	0.0
16	0.0	805.2	65.3	0.0	0.0	0.0
17	75.5	826.6	75.0	0.0	0.0	0.0
18	168.7	403.8	62.5	0.0	0.0	0.0
19	322.7	467.3	60.8	0.0	0.0	0.0
20	474.3	675.5	39.0	0.0	0.0	0.0
21	555.7	697.7	0.0	0.0	0.0	0.0
22	610.8	969.5	0.0	10.1	60.4	0.0
23	407.9	429.9	0.0	0.0	211.4	0.0
24	0.0	707.8	0.0	0.0	176.2	0.0
25	524.4	0.0	0.0	10.1	60.4	0.0
26	24.3	165.0	0.0	0.0	0.0	0.0
27	146.2	291.0	0.0	0.0	0.0	0.0
28	425.0	243.6	0.0	0.0	0.0	0.0
29	464.7	257.8	0.0	0.0	0.0	0.0
30	269.6	200.9	0.0	15.1	0.0	0.0
31		215.3		0.0	0.0	

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RANBO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 214 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/10/82

COMPUTED DAILY RUNOFF FOR ZONE 3

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	0.0	0.0	554.3	113.6	0.0
2	0.0	0.0	102.4	436.0	0.0	0.0
3	0.0	56.9	586.7	276.4	0.0	0.0
4	0.0	152.5	1209.5	280.5	227.2	0.0
5	0.0	75.7	1294.6	209.7	75.7	0.0
6	0.0	0.0	1381.9	219.4	0.0	189.3
7	0.0	260.8	1354.2	317.9	113.6	0.0
8	0.0	148.4	2802.1	181.4	170.4	189.3
9	0.0	208.5	3426.9	153.7	0.0	378.6
10	0.0	365.6	2417.0	154.7	132.5	530.0
11	0.0	439.1	2297.4	127.4	0.0	0.0
12	0.0	0.0	1535.8	104.4	37.9	0.0
13	0.0	0.0	1697.0	284.3	113.6	0.0
14	0.0	335.5	1397.7	58.3	227.2	0.0
15	0.0	0.0	749.0	47.0	0.0	0.0
16	0.0	0.0	1185.0	22.3	0.0	0.0
17	0.0	709.6	1905.2	19.1	94.6	0.0
18	0.0	0.0	1779.0	0.0	0.0	0.0
19	0.0	159.0	2334.3	51.6	0.0	0.0
20	101.8	625.0	1182.7	0.0	0.0	0.0
21	220.7	985.9	1856.7	0.0	0.0	0.0
22	177.3	1022.7	1647.7	0.0	700.4	0.0
23	7.2	435.4	1526.8	0.0	378.6	0.0
24	0.0	50.4	1675.6	0.0	359.7	0.0
25	0.0	0.0	1550.2	0.0	0.0	0.0
26	0.0	0.0	1569.5	0.0	0.0	0.0
27	0.0	176.6	1318.7	0.0	0.0	0.0
28	35.2	6.4	1013.0	0.0	0.0	0.0
29	140.1	176.2	1037.8	0.0	0.0	0.0
30	0.0	0.0	1113.3	0.0	0.0	0.0
31		111.7		103.3	0.0	

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RANBO/MARTINEC MODEL VERSION RC1-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/10/82

DAY	STREAMFLOW FOR APRIL			STREAMFLOW FOR MAY			STREAMFLOW FOR JUNE			STREAMFLOW FOR JULY			STREAMFLOW FOR AUGUST			STREAMFLOW FOR SEPTEMBER		
	COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS	
1	46.	45.		475.	331.		498.	1160.		1327.	780.		78.	83.		105.	49.	
2	44.	50.		445.	298.		462.	1170.		1195.	745.		81.	84.		96.	47.	
3	41.	48.		451.	310.		465.	1280.		1065.	680.		85.	85.		88.	44.	
4	39.	52.		499.	364.		544.	1420.		942.	610.		82.	85.		81.	51.	
5	38.	55.		516.	435.		681.	1540.		837.	540.		91.	84.		75.	61.	
6	41.	57.		524.	500.		817.	1630.		744.	486.		92.	87.		73.	61.	
7	43.	57.		560.	675.		944.	1560.		683.	439.		87.	87.		78.	56.	
8	41.	58.		622.	770.		1115.	1630.		651.	435.		92.	105.		77.	69.	
9	39.	64.		616.	735.		1460.	2040.		583.	375.		99.	102.		92.	84.	
10	41.	70.		620.	660.		1782.	2310.		524.	347.		94.	97.		126.	179.	
11	48.	75.		667.	670.		1920.	2150.		473.	325.		95.	91.		161.	278.	
12	45.	75.		689.	615.		1974.	2130.		426.	298.		89.	104.		149.	169.	
13	43.	66.		599.	527.		1928.	2000.		394.	272.		87.	111.		135.	139.	
14	43.	72.		558.	522.		1891.	1860.		378.	262.		92.	120.		123.	121.	
15	54.	93.		582.	545.		1786.	1670.		338.	222.		98.	129.		113.	107.	
16	72.	114.		560.	527.		1642.	1530.		301.	193.		90.	123.		103.	94.	
17	81.	139.		632.	563.		1613.	1500.		268.	167.		85.	114.		95.	80.	
18	100.	175.		720.	572.		1668.	1570.		239.	151.		83.	109.		87.	73.	
19	133.	220.		689.	595.		1726.	1490.		214.	141.		77.	105.		80.	66.	
20	186.	280.		713.	695.		1780.	1300.		195.	131.		71.	104.		74.	56.	
21	249.	316.		820.	800.		1717.	1150.		175.	125.		66.	88.		69.	54.	
22	368.	379.		968.	978.		1730.	1100.		157.	131.		78.	66.		64.	53.	
23	446.	407.		1080.	1140.		1710.	1110.		143.	133.		129.	138.		59.	51.	
24	456.	379.		1024.	1100.		1686.	1120.		130.	129.		178.	143.		56.	50.	
25	440.	301.		906.	900.		1678.	1100.		118.	120.		206.	131.		52.	50.	
26	446.	255.		776.	852.		1657.	1060.		109.	118.		191.	107.		49.	49.	
27	408.	228.		701.	930.		1629.	1040.		99.	109.		171.	102.		46.	48.	
28	410.	255.		659.	1020.		1561.	978.		91.	102.		154.	97.		43.	49.	
29	452.	328.		610.	1090.		1470.	864.		84.	96.		139.	80.		41.	47.	
30	489.	341.		576.	1090.		1402.	780.		78.	84.		126.	53.		39.	50.	
31				530.	1130.					75.	88.		115.	52.				

RANGO/MARTINEC MODEL VERSION RC1-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

SUMMARY OF THE MODEL RUN FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/10/82

NASH-SUTCLIFFE GOODNESS OF FIT METHOD - NSR**2 = 0.7719

ACTUAL SEASON VOLUME = 84540.000 CFS-DAYS

COMPUTED SEASON VOLUME = 87582.672 CFS-DAYS

SEASONAL DIFFERENCE IN PERCENT = 3.47

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OF POOR QUALITY

Actual Snowcover Data
South Fork 1980

KANCO-MARTINEC MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/7/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 1

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.44	1.000	4.98	0.73	0.629	12.95	3.00	0.065	30.77	0.00	0.000	29.76	0.02	0.000	21.76	0.00	0.000
2	0.00	0.49	1.000	9.36	0.06	0.609	13.36	0.00	0.055	29.27	0.00	0.000	32.56	0.13	0.000	23.87	0.00	0.000
3	0.00	0.00	1.000	12.46	0.32	0.590	17.25	0.00	0.045	26.86	0.00	0.000	30.30	0.05	0.000	23.16	0.00	0.000
4	0.00	0.00	1.000	9.48	0.12	0.570	18.26	0.00	0.038	28.26	0.00	0.000	31.27	0.00	0.000	24.76	0.00	0.000
5	0.08	0.08	0.995	13.26	0.10	0.550	20.15	0.00	0.032	28.85	0.00	0.000	27.58	0.09	0.000	25.46	0.00	0.000
6	2.45	0.04	0.990	14.15	0.19	0.530	23.44	0.00	0.028	29.36	0.00	0.000	30.57	0.00	0.000	22.27	0.00	0.000
7	0.00	0.04	0.980	14.66	0.47	0.510	20.65	0.00	0.021	29.06	0.33	0.000	32.27	0.00	0.000	27.47	0.00	0.000
8	0.00	0.00	0.979	13.66	0.04	0.493	23.87	0.00	0.018	29.36	0.00	0.000	30.47	0.11	0.000	26.48	0.04	0.000
9	0.15	0.08	0.971	10.18	0.00	0.470	27.57	0.00	0.011	31.06	0.00	0.000	28.87	0.00	0.000	20.98	0.08	0.000
10	3.25	0.03	0.963	13.77	0.04	0.450	24.86	0.00	0.009	33.36	0.00	0.000	30.98	0.00	0.000	22.47	0.23	0.000
11	0.06	0.36	0.958	16.47	0.12	0.430	24.06	0.00	0.005	31.97	0.00	0.000	28.86	0.03	0.000	19.65	0.08	0.000
12	0.00	0.00	0.948	4.98	0.00	0.411	22.36	0.00	0.001	32.27	0.00	0.000	24.07	0.00	0.000	18.15	0.00	0.000
13	0.00	0.08	0.938	5.46	0.00	0.394	21.96	0.00	0.000	30.06	0.09	0.000	25.37	0.00	0.000	19.47	0.00	0.000
14	3.73	0.00	0.928	10.58	0.16	0.372	21.86	0.00	0.000	27.86	0.00	0.000	26.46	0.01	0.000	21.97	0.03	0.000
15	7.65	0.00	0.918	6.17	0.60	0.351	19.55	0.00	0.000	27.46	0.00	0.000	27.77	0.00	0.000	22.66	0.00	0.000
16	6.95	0.00	0.908	8.97	0.17	0.335	21.15	0.00	0.000	30.06	0.00	0.000	25.69	0.00	0.000	23.56	0.00	0.000
17	8.75	0.00	0.893	10.88	0.12	0.312	25.86	0.00	0.000	30.36	0.00	0.000	24.67	0.00	0.000	22.35	0.00	0.000
18	11.15	0.00	0.878	8.27	0.08	0.293	25.36	0.00	0.000	31.46	0.00	0.000	25.27	0.00	0.000	21.16	0.00	0.000
19	13.25	0.00	0.858	13.56	0.00	0.270	26.77	0.00	0.000	32.65	0.00	0.000	24.95	0.00	0.000	22.16	0.00	0.000
20	15.65	0.00	0.840	18.45	0.00	0.250	23.55	0.00	0.000	30.97	0.00	0.000	21.26	0.00	0.000	19.96	0.00	0.000
21	16.16	0.00	0.818	18.96	0.00	0.235	25.96	0.00	0.000	31.17	0.00	0.000	22.06	0.00	0.000	17.26	0.00	0.000
22	15.56	0.29	0.800	20.65	0.12	0.215	26.65	0.00	0.000	31.55	0.02	0.000	22.45	0.12	0.000	14.86	0.00	0.000
23	11.16	0.24	0.780	16.65	0.00	0.199	26.15	0.00	0.000	27.27	0.00	0.000	23.96	0.42	0.000	15.16	0.00	0.000
24	5.16	0.77	0.760	15.05	0.00	0.179	29.05	0.00	0.000	27.66	0.00	0.000	20.75	0.35	0.000	15.86	0.00	0.000
25	4.81	0.32	0.742	5.56	0.00	0.160	29.15	0.00	0.000	28.38	0.02	0.000	23.55	0.12	0.000	16.04	0.00	0.000
26	2.39	0.13	0.723	10.56	0.00	0.145	30.76	0.00	0.000	29.67	0.00	0.000	23.58	0.00	0.000	17.68	0.00	0.000
27	8.46	0.00	0.702	14.65	0.00	0.125	31.36	0.00	0.000	30.16	0.00	0.000	21.37	0.00	0.000	19.37	0.00	0.000
28	11.36	0.12	0.689	14.25	0.00	0.113	28.26	0.00	0.000	29.87	0.00	0.000	22.07	0.00	0.000	18.76	0.00	0.000
29	12.77	0.04	0.669	14.65	0.00	0.099	28.97	0.00	0.000	33.48	0.00	0.000	23.27	0.00	0.000	21.66	0.00	0.000
30	8.36	0.22	0.649	13.75	0.00	0.085	34.87	0.00	0.000	30.86	0.03	0.000	21.88	0.00	0.000	22.36	0.00	0.000
31				14.15	0.00	0.075				31.74	0.00	0.000	21.98	0.00	0.000			

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/ 7/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 2

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.57	1.000	1.40	0.39	1.000	5.79	0.00	0.400	25.76	0.00	0.000	23.55	0.02	0.000	15.55	0.00	0.000
2	0.00	0.58	1.000	2.67	0.09	1.000	6.67	0.00	0.350	24.26	0.00	0.000	27.32	0.13	0.000	19.56	0.00	0.000
3	0.00	0.00	1.000	6.50	0.70	1.000	9.85	0.03	0.310	20.17	0.00	0.000	30.06	0.05	0.000	17.44	0.00	0.000
4	0.00	0.00	1.000	5.90	0.10	0.999	12.05	0.00	0.275	22.05	0.00	0.000	26.26	0.00	0.000	18.55	0.00	0.000
5	0.00	0.18	1.000	7.05	0.02	0.998	13.23	0.00	0.250	20.97	0.00	0.000	24.72	0.09	0.000	19.49	0.00	0.000
6	0.00	0.09	1.000	6.03	0.36	0.997	15.09	0.00	0.220	22.47	0.00	0.000	26.52	0.00	0.000	17.26	0.00	0.000
7	0.00	0.09	1.000	8.94	0.65	0.993	13.73	0.00	0.200	23.82	0.00	0.000	28.46	0.00	0.000	22.70	0.00	0.000
8	0.00	0.00	1.000	7.94	0.01	0.990	19.58	0.00	0.180	23.88	0.00	0.000	25.70	0.11	0.000	22.90	0.04	0.000
9	0.00	0.18	1.000	6.84	0.00	0.983	23.52	0.00	0.160	24.61	0.00	0.000	24.58	0.00	0.000	17.40	0.08	0.000
10	0.00	0.00	1.000	9.96	0.09	0.985	19.38	0.00	0.149	27.88	0.00	0.000	27.40	0.00	0.000	17.70	0.23	0.000
11	0.00	0.47	1.000	11.70	0.26	0.981	18.82	0.00	0.135	27.20	0.00	0.000	23.38	0.03	0.000	12.73	0.08	0.000
12	0.00	0.00	1.000	1.40	0.00	0.979	15.67	0.00	0.119	27.26	0.00	0.000	20.02	0.00	0.000	12.44	0.00	0.000
13	0.00	0.18	1.000	0.00	0.00	0.973	15.99	0.00	0.103	24.82	0.09	0.000	21.08	0.00	0.000	14.70	0.00	0.000
14	0.00	0.00	1.000	7.72	0.35	0.970	15.17	0.00	0.093	22.38	0.00	0.000	20.50	0.01	0.000	17.20	0.03	0.000
15	0.73	0.00	1.000	1.64	0.44	0.963	11.91	0.00	0.082	21.50	0.00	0.000	22.76	0.00	0.000	16.94	0.00	0.000
16	0.00	0.00	1.000	4.20	0.11	0.959	14.23	0.00	0.075	23.61	0.00	0.000	23.54	0.00	0.000	18.32	0.00	0.000
17	1.35	0.00	1.000	7.78	0.26	0.950	19.17	0.00	0.048	23.67	0.00	0.000	20.14	0.00	0.000	14.47	0.00	0.000
18	3.03	0.00	1.000	3.26	0.18	0.946	18.67	0.00	0.059	25.50	0.00	0.000	20.26	0.00	0.000	15.44	0.00	0.000
19	5.85	0.00	1.000	7.11	0.00	0.936	21.76	0.00	0.050	25.73	0.00	0.000	17.79	0.00	0.000	16.44	0.00	0.000
20	8.73	0.00	1.000	11.29	0.00	0.925	15.91	0.00	0.044	26.20	0.00	0.000	15.05	0.00	0.000	14.00	0.00	0.000
21	10.44	0.00	1.000	12.99	0.00	0.911	20.00	0.00	0.038	26.64	0.00	0.000	15.61	0.00	0.000	11.05	0.00	0.000
22	9.11	0.62	1.000	13.73	0.26	0.892	19.73	0.00	0.031	23.91	0.02	0.000	15.29	0.12	0.000	8.17	0.00	0.000
23	5.44	0.53	1.000	9.73	0.00	0.866	19.23	0.00	0.028	22.26	0.00	0.000	17.99	0.42	0.000	9.44	0.00	0.000
24	0.00	0.63	1.000	7.41	0.00	0.820	21.41	0.00	0.020	21.94	0.00	0.000	13.35	0.35	0.000	9.17	0.00	0.000
25	5.76	0.70	1.000	0.00	0.00	0.770	22.23	0.00	0.018	25.28	0.02	0.000	15.91	0.12	0.000	10.82	0.00	0.000
26	0.48	0.19	1.000	4.11	0.00	0.710	24.55	0.00	0.011	25.14	0.00	0.000	20.72	0.00	0.000	14.34	0.00	0.000
27	2.49	0.00	1.000	7.73	0.00	0.660	24.67	0.00	0.008	24.44	0.00	0.000	17.08	0.00	0.000	15.08	0.00	0.000
28	5.88	0.26	1.000	6.65	0.00	0.600	22.05	0.00	0.002	23.58	0.00	0.000	18.02	0.00	0.000	12.55	0.00	0.000
29	7.76	0.09	1.000	7.73	0.00	0.550	24.20	0.00	0.000	31.10	0.00	0.000	19.46	0.00	0.000	15.94	0.00	0.000
30	2.88	0.28	1.000	6.35	0.00	0.500	30.58	0.00	0.000	25.38	0.03	0.000	18.78	0.00	0.000	15.67	0.00	0.000
31				7.23	0.00	0.450				23.15	0.00	0.000	18.40	0.00	0.000			

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KINGDOM/MARTINEC MODEL VERSION KCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 214 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/7/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 3

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	1.45	1.000	0.00	0.30	1.000	0.00	0.00	0.917	21.15	0.00	0.055	17.81	0.30	0.000	9.85	0.00	0.000
2	0.00	0.44	1.000	0.00	0.12	1.000	0.53	0.00	0.900	19.65	0.00	0.045	22.41	0.00	0.000	15.63	0.00	0.000
3	0.00	0.00	1.000	1.01	1.06	1.000	3.05	0.00	0.885	14.03	0.00	0.037	29.81	0.00	0.000	12.17	0.00	0.000
4	0.00	0.00	1.000	2.61	0.10	1.000	6.35	0.00	0.865	16.35	0.00	0.030	21.65	0.60	0.000	12.85	0.00	0.000
5	0.00	0.26	1.000	1.35	0.00	1.000	6.87	0.00	0.840	13.73	0.00	0.025	22.09	0.20	0.000	14.01	0.00	0.000
6	0.00	0.13	1.000	0.00	0.51	1.000	7.42	0.00	0.815	16.53	0.00	0.018	22.79	0.00	0.000	12.65	0.50	0.000
7	0.00	0.13	1.000	3.67	0.82	1.000	7.37	0.00	0.790	18.99	0.10	0.012	24.95	0.30	0.000	18.31	0.00	0.000
8	0.00	0.00	1.000	2.67	0.09	1.000	15.63	0.00	0.760	18.83	0.00	0.008	21.31	0.45	0.000	19.61	0.50	0.000
9	0.00	0.26	1.000	3.77	0.00	1.000	19.79	0.00	0.730	18.69	0.00	0.000	20.63	0.00	0.000	14.11	1.00	0.000
10	0.00	0.00	1.000	6.45	0.13	1.000	14.33	0.00	0.700	22.83	0.00	0.000	24.11	0.35	0.000	13.31	1.40	0.000
11	0.00	0.58	1.000	7.31	0.40	1.000	13.99	0.00	0.660	22.81	0.00	0.000	18.33	0.00	0.000	6.37	0.00	0.000
12	0.00	0.00	1.000	0.00	0.00	1.000	9.53	0.00	0.620	22.65	0.00	0.000	16.29	0.10	0.000	7.17	0.00	0.000
13	0.00	0.26	1.000	0.00	0.00	1.000	10.51	0.10	0.580	19.99	0.20	0.000	17.13	0.30	0.000	10.31	0.00	0.000
14	0.00	0.00	1.000	5.09	0.53	1.000	9.03	0.00	0.530	17.33	0.00	0.000	15.01	0.60	0.000	12.81	0.00	0.000
15	0.00	0.00	1.000	0.00	0.40	1.000	4.89	0.00	0.490	16.01	0.00	0.000	18.15	0.00	0.000	11.67	0.00	0.000
16	0.00	0.00	1.000	0.00	0.10	1.000	7.87	0.00	0.450	17.69	0.00	0.000	21.56	0.00	0.000	13.49	0.00	0.000
17	0.00	0.00	1.000	4.93	0.40	1.000	13.03	0.00	0.410	17.53	0.00	0.000	15.97	0.25	0.000	7.23	0.00	0.000
18	0.00	0.00	1.000	0.00	0.26	1.000	12.53	0.00	0.370	20.01	0.00	0.000	15.65	0.00	0.000	10.17	0.00	0.000
19	0.00	0.00	1.000	1.19	0.00	0.999	17.15	0.00	0.330	19.37	0.10	0.000	11.21	0.00	0.000	11.17	0.00	0.000
20	0.37	0.00	1.000	4.71	0.00	0.998	8.89	0.00	0.300	21.81	0.00	0.000	9.35	0.00	0.000	8.51	0.00	0.000
21	5.17	0.00	1.000	7.51	0.00	0.995	14.51	0.00	0.260	22.47	0.00	0.000	9.69	0.00	0.000	5.35	0.00	0.000
22	3.19	0.92	1.000	7.37	0.40	0.990	13.37	0.00	0.230	16.89	0.00	0.000	8.71	1.85	0.000	2.03	0.00	0.000
23	0.17	0.79	1.000	3.37	0.00	0.989	12.87	0.00	0.209	17.65	0.00	0.000	12.51	1.00	0.000	4.17	0.00	0.000
24	0.00	0.60	1.000	0.39	0.00	0.983	14.39	0.00	0.175	16.67	0.00	0.000	6.53	0.95	0.000	3.03	0.00	0.000
25	0.00	1.04	1.000	0.00	0.00	0.979	15.87	0.00	0.150	22.43	0.00	0.000	8.89	0.00	0.000	5.99	0.00	0.000
26	0.00	0.24	1.000	0.00	0.00	0.971	18.85	0.00	0.125	20.97	0.00	0.000	18.09	0.00	0.000	11.27	0.00	0.000
27	0.00	0.00	1.000	1.37	0.00	0.965	18.53	0.00	0.100	19.17	0.00	0.000	13.13	0.00	0.000	11.13	0.00	0.000
28	0.83	0.40	1.000	0.05	0.02	0.959	16.35	0.00	0.085	21.53	0.00	0.000	14.29	0.00	0.000	6.85	0.00	0.000
29	3.15	0.13	1.000	1.37	0.00	0.949	19.81	0.00	0.072	28.90	0.00	0.000	15.95	0.00	0.000	10.67	0.00	0.000
30	0.00	0.34	1.000	0.00	0.00	0.940	26.63	0.00	0.065	20.33	0.00	0.000	15.77	0.00	0.000	9.53	0.00	0.000
31				0.87	0.00	0.930				15.26	0.20	0.000	14.95	0.00	0.000			

KANRO/MARTINEC MODEL VERSION KCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/ 7/82

WATERSHED MELT AND RUNOFF COEFFICIENTS

APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
1	15	30	1	15	30	1	15	30	1	15	30	1	15	30	1	15	30

DATA FOR ZONE 1:

MELT FACTORS
RUNOFF COEF.
PREC. METHOD

0.050	0.050	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070
0.750	0.400	0.250	0.250	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180
0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1

DATA FOR ZONE 2:

MELT FACTORS
RUNOFF COEF.
PREC. METHOD

0.030	0.030	0.030	0.100	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
0.700	0.700	0.650	0.600	0.500	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450
0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1

DATA FOR ZONE 3:

MELT FACTORS
RUNOFF COEF.
PREC. METHOD

0.030	0.030	0.040	0.100	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160
0.850	0.850	0.850	0.850	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800	0.800
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NOTE: PREC. METHOD:

0 = PREC. RUNOFF COMPUTED FOR NON-SNOWCOVERED AREAS ONLY
1 = PREC. RUNOFF COMPUTED FOR ALL AREAS

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THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/7/82

COMPUTED DAILY RUNOFF FOR ZONE 1

DAY	MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	COMPUTED	RUNOFF	COMPUTED	RUNOFF	COMPUTED	RUNOFF	COMPUTED	RUNOFF	COMPUTED	RUNOFF
	CFS	CFS	CFS	CFS	CFS	CFS	CFS	CFS	CFS	CFS
1	0.0	158.1	13.7	0.0	0.0	4.6	0.0	0.0	0.0	0.0
2	0.0	136.3	11.9	0.0	0.0	30.2	0.0	0.0	0.0	0.0
3	0.0	208.4	12.6	0.0	0.0	11.6	0.0	0.0	0.0	0.0
4	0.0	138.7	11.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	89.6	179.2	10.5	0.0	0.0	20.9	0.0	0.0	0.0	0.0
6	117.8	198.2	10.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	243.2	7.1	76.7	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	158.7	7.0	0.0	0.0	25.6	9.3	0.0	0.0	0.0
9	0.0	108.1	4.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	744.7	147.1	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	7.8	182.0	2.0	0.0	0.0	7.0	0.0	0.0	0.0	0.0
12	0.0	46.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	48.6	0.0	20.9	0.0	0.0	0.0	0.0	0.0	0.0
14	127.5	121.3	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0
15	339.9	174.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	162.9	88.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	201.7	83.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	352.2	58.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	293.5	59.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	339.3	75.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	741.2	72.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	351.5	100.1	0.0	4.6	0.0	27.9	0.0	0.0	0.0	0.0
23	357.0	53.9	0.0	0.0	0.0	97.6	0.0	0.0	0.0	0.0
24	194.6	43.8	0.0	0.0	0.0	81.3	0.0	0.0	0.0	0.0
25	174.8	14.5	0.0	0.0	4.6	27.9	0.0	0.0	0.0	0.0
26	43.2	24.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	153.2	29.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	221.3	26.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	227.4	23.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	179.9	19.0	0.0	7.0	0.0	0.0	0.0	0.0	0.0	0.0
31		17.3		0.0	0.0	0.0	0.0	0.0	0.0	0.0

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RANSOMATED MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/7/82

COMPUTED DAILY RUNOFF FOR ZONE 2

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	76.3	453.4	0.0	10.1	0.0
2	0.0	145.6	457.0	0.0	65.4	0.0
3	0.0	354.4	597.7	0.0	25.2	0.0
4	0.0	321.6	648.7	0.0	0.0	0.0
5	0.0	383.7	647.4	0.0	45.3	0.0
6	0.0	329.8	649.9	0.0	0.0	0.0
7	0.0	492.4	537.5	184.6	0.0	0.0
8	0.0	428.8	689.9	0.0	55.4	20.1
9	0.0	348.9	736.7	0.0	0.0	40.3
10	0.0	537.4	565.3	0.0	0.0	115.8
11	0.0	634.9	497.3	0.0	15.1	40.3
12	0.0	74.7	365.0	0.0	0.0	0.0
13	0.0	0.0	322.4	50.3	0.0	0.0
14	0.0	427.4	276.2	0.0	5.0	15.1
15	42.9	86.1	191.2	0.0	0.0	0.0
16	0.0	693.4	188.0	0.0	0.0	0.0
17	79.3	1261.9	229.7	0.0	0.0	0.0
18	172.9	533.8	194.1	0.0	0.0	0.0
19	347.5	1116.6	191.7	0.0	0.0	0.0
20	533.7	1752.2	123.3	0.0	0.0	0.0
21	417.1	1985.6	133.9	0.0	0.0	0.0
22	547.0	2102.0	107.8	10.1	60.4	0.0
23	110.5	1413.8	94.5	0.0	211.4	0.0
24	0.0	1019.5	75.4	0.0	176.2	0.0
25	318.3	0.0	70.2	10.1	60.4	0.0
26	36.1	489.6	47.6	0.0	0.0	0.0
27	144.1	856.0	34.8	0.0	0.0	0.0
28	145.3	689.6	7.8	0.0	0.0	0.0
29	455.7	713.3	0.0	0.0	0.0	0.0
30	149.1	532.7	0.0	15.1	0.0	0.0
31		545.9		0.0	0.0	

ORIGINAL PAGE IS
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RAMMO, MARTINEC MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/7/82

COMPUTED DAILY RUNOFF FOR ZONE 3

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	0.0	0.0	192.2	113.6	0.0
2	0.0	0.0	105.1	146.1	0.0	0.0
3	0.0	59.1	594.6	90.4	0.0	0.0
4	0.0	152.7	1209.9	81.0	227.2	0.0
5	0.0	79.0	1271.2	56.7	75.7	0.0
6	0.0	0.0	1332.1	49.2	0.0	189.3
7	0.0	214.7	1282.5	140.9	113.6	0.0
8	0.0	156.2	2616.6	24.9	170.4	189.3
9	0.0	220.6	3182.2	3.1	0.0	378.6
10	0.0	377.4	2209.6	0.0	132.5	530.0
11	0.0	427.7	2033.9	0.0	0.0	0.0
12	0.0	0.0	1391.5	0.0	37.9	0.0
13	0.0	0.0	1400.6	206.5	113.6	0.0
14	0.0	297.8	1054.2	0.0	227.2	0.0
15	0.0	0.0	527.8	0.0	0.0	0.0
16	0.0	0.0	780.1	0.0	0.0	0.0
17	0.0	721.1	1176.8	0.0	94.6	0.0
18	0.0	0.0	1021.2	0.0	0.0	0.0
19	0.0	173.9	1246.6	51.6	0.0	0.0
20	104.0	687.6	587.5	0.0	0.0	0.0
21	124.8	1093.0	831.0	0.0	0.0	0.0
22	140.9	1073.1	677.4	0.0	700.4	0.0
23	7.5	487.5	592.5	0.0	378.6	0.0
24	0.0	56.1	554.7	0.0	359.7	0.0
25	0.0	0.0	524.4	0.0	0.0	0.0
26	0.0	0.0	519.0	0.0	0.0	0.0
27	0.0	193.4	408.2	0.0	0.0	0.0
28	24.4	7.0	306.1	0.0	0.0	0.0
29	139.2	190.2	314.2	0.0	0.0	0.0
30	0.0	0.0	381.3	0.0	0.0	0.0
31		118.4		103.3	0.0	

KANGOO/MARTINCO MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/ 7/82

DAY	STREAMFLOW FOR APRIL			STREAMFLOW FOR MAY			STREAMFLOW FOR JUNE			STREAMFLOW FOR JUL			STREAMFLOW FOR AUGUST			STREAMFLOW FOR SEPTEMBER		
	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS
1	46.	45.	432.	331.	940.	1160.	633.	780.	55.	83.	102.	49.						
2	44.	50.	408.	298.	872.	1170.	569.	745.	59.	84.	94.	47.						
3	41.	48.	405.	310.	856.	1280.	508.	61.	85.	86.	44.							
4	39.	52.	433.	364.	938.	1420.	452.	610.	63.	85.	79.	51.						
5	38.	55.	457.	435.	1084.	1540.	402.	540.	72.	84.	73.	61.						
6	41.	57.	477.	500.	1220.	1630.	358.	486.	74.	87.	72.	61.						
7	44.	57.	500.	675.	1336.	1560.	333.	439.	71.	87.	77.	56.						
8	41.	58.	552.	770.	1489.	1630.	328.	435.	77.	105.	76.	69.						
9	40.	64.	577.	735.	1824.	2040.	290.	375.	85.	102.	91.	84.						
10	41.	70.	609.	660.	2128.	2310.	257.	347.	81.	97.	125.	179.						
11	48.	75.	680.	670.	2230.	2150.	227.	325.	83.	91.	160.	278.						
12	45.	75.	712.	615.	2238.	2130.	203.	298.	78.	104.	148.	169.						
13	43.	66.	624.	527.	2139.	2000.	190.	272.	77.	111.	134.	139.						
14	43.	72.	576.	522.	2044.	1860.	190.	262.	82.	120.	122.	121.						
15	44.	93.	589.	545.	1886.	1670.	171.	222.	89.	129.	113.	107.						
16	70.	114.	565.	527.	1696.	1530.	154.	193.	82.	123.	103.	94.						
17	79.	139.	647.	563.	1594.	1500.	139.	167.	78.	114.	94.	80.						
18	98.	175.	786.	572.	1553.	1570.	126.	151.	77.	109.	87.	73.						
19	130.	220.	791.	595.	1507.	1490.	116.	141.	71.	105.	80.	66.						
20	186.	280.	925.	695.	1459.	1300.	109.	131.	66.	104.	74.	50.						
21	222.	316.	1197.	800.	1348.	1150.	99.	125.	61.	88.	68.	54.						
22	371.	379.	1516.	978.	1276.	1100.	92.	131.	73.	66.	64.	53.						
23	434.	407.	1744.	1140.	1192.	1110.	85.	133.	123.	138.	59.	51.						
24	440.	375.	1738.	1100.	1108.	1120.	78.	129.	172.	143.	55.	50.						
25	419.	301.	1575.	900.	1031.	1100.	73.	120.	201.	131.	52.	50.						
26	411.	275.	1337.	852.	962.	1060.	68.	118.	186.	107.	49.	49.						
27	378.	228.	1230.	930.	895.	1040.	63.	109.	167.	102.	46.	48.						
28	380.	255.	1189.	1020.	821.	978.	59.	102.	150.	97.	43.	47.						
29	414.	328.	1124.	1090.	745.	864.	55.	96.	136.	80.	41.	49.						
30	450.	361.	1075.	1090.	685.	780.	52.	84.	123.	53.	39.	50.						
31			999.	1130.			52.	88.	112.	52.								

ORIGINAL PAGE IS
OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

SUMMARY OF THE MODEL RUN FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/ 7/82

NASH-SUTCLIFFE GOODNESS OF FIT METHOD - NSR**2 = 0.9177

ACTUAL SEASON VOLUME = 84540.000 CFS-DAYS

COMPUTED SEASON VOLUME = 84766.719 CFS-DAYS

SEASONAL DIFFERENCE IN PERCENT = 0.27

ORIGINAL PAGE IS
OF POOR QUALITY

Actual Snowcover Data
Rio Grande 1980

RANGO/MARTINEC MODEL VERSION RL1-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/ 6/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 1

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	FREC. IN.	SNOW COVER	DEGREE DAYS	FREC. IN.	SNOW COVER	DEGREE DAYS	FREC. IN.	SNOW COVER	DEGREE DAYS	FREC. IN.	SNOW COVER	DEGREE DAYS	FREC. IN.	SNOW COVER	DEGREE DAYS	FREC. IN.	SNOW COVER
1	0.00	0.41	0.870	5.18	0.75	0.272	13.37	0.00	0.000	31.06	0.00	0.000	30.12	0.02	0.000	22.12	0.00	0.000
2	0.00	0.49	0.845	9.74	0.06	0.259	13.74	0.00	0.000	29.56	0.00	0.000	32.87	0.13	0.000	24.12	0.00	0.000
3	0.00	0.00	0.821	12.81	0.30	0.240	17.68	0.00	0.000	27.24	0.00	0.000	30.31	0.05	0.000	23.49	0.00	0.000
4	0.00	0.00	0.800	9.60	0.12	0.222	18.62	0.00	0.000	26.62	0.00	0.000	31.56	0.00	0.000	25.12	0.00	0.000
5	2.24	0.08	0.772	13.62	0.10	0.203	20.55	0.00	0.000	29.30	0.00	0.000	27.75	0.09	0.000	25.81	0.00	0.000
6	2.87	0.04	0.758	14.61	0.18	0.190	23.93	0.00	0.000	29.74	0.00	0.000	30.81	0.00	0.000	22.56	0.00	0.000
7	0.00	0.04	0.731	14.99	0.46	0.172	21.05	0.00	0.000	29.37	0.33	0.000	32.50	0.00	0.000	27.74	0.00	0.000
8	0.00	0.00	0.709	13.99	0.04	0.155	24.12	0.00	0.000	29.68	0.00	0.000	30.74	0.11	0.000	26.68	0.04	0.000
9	0.55	0.08	0.688	10.37	0.00	0.141	27.81	0.00	0.000	31.43	0.00	0.000	29.12	0.00	0.000	21.18	0.08	0.000
10	5.68	0.00	0.660	14.00	0.04	0.117	25.18	0.00	0.000	33.68	0.00	0.000	31.18	0.00	0.000	22.74	0.23	0.000
11	0.43	0.35	0.641	16.74	0.11	0.111	24.37	0.00	0.000	32.24	0.00	0.000	29.18	0.03	0.000	20.05	0.08	0.000
12	0.00	0.00	0.620	5.18	0.00	0.100	22.74	0.00	0.000	32.56	0.00	0.000	24.31	0.00	0.000	18.49	0.00	0.000
13	0.00	0.08	0.600	5.81	0.00	0.089	22.31	0.00	0.000	30.37	0.09	0.000	25.62	0.00	0.000	19.74	0.00	0.000
14	4.30	0.00	0.580	10.75	0.15	0.075	22.24	0.00	0.000	28.18	0.00	0.000	26.81	0.01	0.000	22.24	0.03	0.000
15	8.05	0.00	0.559	6.43	0.01	0.065	19.99	0.00	0.000	27.81	0.00	0.000	28.06	0.00	0.000	22.99	0.00	0.000
16	7.37	0.00	0.540	9.24	0.17	0.055	21.55	0.00	0.000	30.74	0.00	0.000	25.81	0.00	0.000	23.87	0.00	0.000
17	9.18	0.00	0.525	11.06	0.11	0.045	26.24	0.00	0.000	30.74	0.00	0.000	24.93	0.00	0.000	22.80	0.00	0.000
18	11.61	0.00	0.500	8.56	0.08	0.033	25.74	0.00	0.000	31.81	0.00	0.000	25.56	0.00	0.000	21.49	0.00	0.000
19	13.68	0.00	0.487	12.93	0.00	0.028	27.06	0.00	0.000	33.05	0.00	0.000	25.37	0.00	0.000	22.49	0.00	0.000
20	16.05	0.00	0.465	18.87	0.00	0.019	23.99	0.00	0.000	31.24	0.00	0.000	21.62	0.00	0.000	20.31	0.00	0.000
21	16.49	0.00	0.450	19.31	0.00	0.010	26.31	0.00	0.000	31.43	0.00	0.000	22.43	0.00	0.000	17.62	0.00	0.000
22	15.93	0.27	0.430	21.05	0.11	0.001	27.05	0.00	0.000	31.79	0.02	0.000	22.87	0.12	0.000	15.24	0.00	0.000
23	11.49	0.23	0.418	17.05	0.00	0.000	26.55	0.00	0.000	27.56	0.00	0.000	24.31	0.42	0.000	15.49	0.00	0.000
24	5.49	0.78	0.399	15.49	0.00	0.000	29.49	0.00	0.000	27.99	0.00	0.000	21.18	0.35	0.000	16.24	0.00	0.000
25	4.75	0.30	0.380	5.93	0.00	0.000	29.55	0.00	0.000	28.56	0.02	0.000	23.99	0.12	0.000	16.37	0.00	0.000
26	2.50	0.13	0.355	10.93	0.00	0.000	31.12	0.00	0.000	29.93	0.00	0.000	23.75	0.00	0.000	17.87	0.00	0.000
27	8.81	0.00	0.345	15.05	0.00	0.000	31.74	0.00	0.000	30.49	0.00	0.000	21.62	0.00	0.000	19.62	0.00	0.000
28	11.68	0.11	0.329	14.68	0.00	0.000	28.62	0.00	0.000	30.12	0.00	0.000	22.31	0.00	0.000	19.12	0.00	0.000
29	13.06	0.04	0.310	15.05	0.00	0.000	29.24	0.00	0.000	33.62	0.00	0.000	23.50	0.00	0.000	21.99	0.00	0.000
30	8.68	0.22	0.294	14.18	0.00	0.000	35.12	0.00	0.000	31.18	0.03	0.000	22.06	0.00	0.000	22.74	0.00	0.000
31				14.55	0.00	0.000				32.24	0.00	0.000	22.18	0.00	0.000			

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RANGO/MARTINEC MODEL VERSION RC1-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORIE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/ 6/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 2

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE	PREC.	SNOW	DEGREE	PREC.	SNOW	DEGREE	PREC.	SNOW	DEGREE	PREC.	SNOW	DEGREE	PREC.	SNOW	DEGREE	PREC.	SNOW
	DAYS	IN.	COVER	DAYS	IN.	COVER	DAYS	IN.	COVER	DAYS	IN.	COVER	DAYS	IN.	COVER	DAYS	IN.	COVER
1	0.00	0.98	1.000	1.29	0.38	0.983	5.59	0.00	0.117	25.61	0.00	0.000	23.38	0.02	0.000	15.38	0.00	0.000
2	0.00	0.58	1.000	2.48	0.09	0.976	6.48	0.00	0.103	24.11	0.00	0.000	27.16	0.13	0.000	19.45	0.00	0.000
3	0.00	0.00	1.000	6.32	0.72	0.969	9.64	0.00	0.093	19.98	0.00	0.000	30.05	0.05	0.000	17.27	0.00	0.000
4	0.00	0.00	1.000	5.79	0.10	0.962	11.98	0.00	0.081	21.88	0.00	0.000	26.11	0.00	0.000	18.38	0.00	0.000
5	0.00	0.18	1.000	6.88	0.02	0.953	13.04	0.00	0.070	20.75	0.00	0.000	24.64	0.09	0.000	19.32	0.00	0.000
6	0.00	0.09	1.000	5.80	0.36	0.945	14.85	0.00	0.061	22.48	0.00	0.000	26.40	0.00	0.000	17.11	0.00	0.000
7	0.00	0.09	1.000	8.77	0.66	0.934	13.54	0.00	0.054	23.66	0.33	0.000	28.35	0.00	0.000	22.56	0.00	0.000
8	0.00	0.00	1.000	7.77	0.01	0.924	19.45	0.00	0.048	23.72	0.00	0.000	25.56	0.11	0.000	22.79	0.04	0.000
9	0.00	0.18	1.000	6.74	0.00	0.912	23.40	0.00	0.039	24.43	0.00	0.000	24.45	0.00	0.000	17.29	0.08	0.000
10	0.00	0.00	1.000	9.85	0.09	0.904	19.22	0.00	0.032	27.72	0.00	0.000	27.29	0.00	0.000	17.56	0.23	0.000
11	0.00	0.47	1.000	11.56	0.27	0.889	18.66	0.00	0.028	27.06	0.00	0.000	23.22	0.03	0.000	12.54	0.08	0.000
12	0.00	0.00	1.000	1.29	0.00	0.872	15.48	0.00	0.021	27.11	0.00	0.000	19.90	0.00	0.000	12.27	0.00	0.000
13	0.00	0.18	1.000	0.00	0.00	0.852	15.82	0.00	0.018	24.66	0.09	0.000	20.95	0.00	0.000	14.56	0.00	0.000
14	0.00	0.00	1.000	7.64	0.36	0.825	14.98	0.00	0.010	22.22	0.00	0.000	20.32	0.01	0.000	17.06	0.03	0.000
15	0.54	0.00	1.000	1.51	0.43	0.785	11.69	0.00	0.008	21.32	0.00	0.000	22.61	0.00	0.000	16.77	0.00	0.000
16	0.00	0.00	1.000	4.05	0.11	0.725	14.04	0.00	0.002	23.43	0.00	0.000	23.48	0.00	0.000	18.16	0.00	0.000
17	1.14	0.00	1.000	7.69	0.27	0.650	18.98	0.00	0.000	23.48	0.00	0.000	20.01	0.00	0.000	14.25	0.00	0.000
18	2.80	0.00	1.000	3.11	0.18	0.580	18.48	0.00	0.000	25.32	0.00	0.000	20.11	0.00	0.000	15.27	0.00	0.000
19	5.64	0.00	1.000	6.93	0.00	0.500	21.61	0.00	0.000	25.54	0.00	0.000	17.59	0.00	0.000	16.27	0.00	0.000
20	8.54	0.00	1.000	11.09	0.00	0.434	15.69	0.00	0.000	26.06	0.00	0.000	14.88	0.00	0.000	13.82	0.00	0.000
21	10.27	0.00	1.000	12.82	0.00	0.380	19.82	0.00	0.000	26.51	0.00	0.000	15.43	0.00	0.000	10.88	0.00	0.000
22	8.93	0.63	1.000	13.54	0.27	0.340	19.54	0.00	0.000	23.69	0.02	0.000	15.09	0.12	0.000	7.98	0.00	0.000
23	5.27	0.54	1.000	9.54	0.00	0.305	19.04	0.00	0.000	22.11	0.00	0.000	17.82	0.42	0.000	9.27	0.00	0.000
24	0.00	0.63	1.000	7.19	0.00	0.275	21.19	0.00	0.000	21.77	0.00	0.000	13.14	0.35	0.000	8.98	0.00	0.000
25	5.79	0.72	1.000	0.00	0.00	0.250	22.04	0.00	0.000	25.19	0.02	0.000	15.69	0.12	0.000	10.66	0.00	0.000
26	0.42	0.19	1.000	3.93	0.00	0.225	24.38	0.00	0.000	25.01	0.00	0.000	20.64	0.00	0.000	14.24	0.00	0.000
27	2.32	0.00	1.000	7.54	0.00	0.205	24.48	0.00	0.000	24.27	0.00	0.000	16.95	0.00	0.000	14.95	0.00	0.000
28	5.72	0.27	1.000	6.64	0.00	0.184	21.88	0.00	0.000	25.45	0.00	0.000	17.90	0.00	0.000	12.38	0.00	0.000
29	7.61	0.09	0.995	7.54	0.00	0.165	24.06	0.00	0.000	31.03	0.00	0.000	19.35	0.00	0.000	15.77	0.00	0.000
30	2.72	0.29	0.989	6.14	0.00	0.145	30.45	0.00	0.000	25.22	0.03	0.000	18.69	0.00	0.000	15.48	0.00	0.000
31				7.04	0.00	0.130				22.91	0.00	0.000	18.29	0.00	0.000			

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/ 6/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 3

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	1.53	1.000	0.00	0.30	1.000	0.00	0.00	0.695	20.38	0.00	0.112	16.89	0.30	0.000	8.89	0.00	0.000
2	0.00	0.67	1.000	0.00	0.13	1.000	0.00	0.00	0.674	16.88	0.00	0.100	21.68	0.00	0.000	14.97	0.00	0.000
3	0.00	0.00	1.000	0.09	1.11	1.000	1.91	0.00	0.654	13.00	0.00	0.090	29.80	0.00	0.000	11.29	0.00	0.000
4	0.00	0.00	1.000	2.05	0.10	1.000	5.39	0.00	0.630	15.39	0.00	0.079	20.88	0.60	0.000	11.89	0.00	0.000
5	0.00	0.28	1.000	0.39	0.00	1.000	5.81	0.00	0.670	12.52	0.00	0.068	21.64	0.20	0.000	12.09	0.00	0.000
6	0.00	0.14	1.000	0.00	0.54	1.000	6.13	0.00	0.590	15.50	0.00	0.060	22.16	0.00	0.000	11.88	0.50	0.000
7	0.00	0.14	1.000	2.79	0.85	1.000	6.31	0.00	0.568	18.18	0.10	0.052	24.36	0.30	0.000	17.57	0.00	0.000
8	0.00	0.00	1.000	1.79	0.00	1.000	14.97	0.00	0.548	17.98	0.00	0.045	20.57	0.45	0.000	19.05	0.50	0.000
9	0.00	0.28	1.000	3.25	0.00	1.000	19.16	0.00	0.528	17.70	0.00	0.038	19.97	0.00	0.000	13.55	1.00	0.000
10	0.00	0.00	1.000	5.86	0.14	1.000	13.48	0.00	0.508	21.98	0.00	0.031	23.55	0.35	0.000	12.57	1.40	0.000
11	0.00	0.59	1.000	6.57	0.42	1.000	13.18	0.00	0.490	22.07	0.00	0.028	17.48	0.00	0.000	5.31	0.00	0.000
12	0.00	0.00	1.000	0.00	0.00	1.000	8.50	0.00	0.468	21.88	0.00	0.020	15.66	0.10	0.000	6.29	0.00	0.000
13	0.00	0.28	1.000	0.00	0.00	1.000	9.59	0.10	0.449	19.18	0.20	0.018	16.47	0.30	0.000	9.57	0.00	0.000
14	0.00	0.00	1.000	4.64	0.56	1.000	8.00	0.00	0.429	16.48	0.00	0.011	14.09	0.60	0.000	12.07	0.00	0.000
15	0.00	0.00	1.000	0.00	0.40	1.000	3.72	0.00	0.407	15.09	0.00	0.009	17.38	0.00	0.000	10.79	0.00	0.000
16	0.00	0.00	1.000	0.00	0.10	1.000	6.81	0.00	0.388	16.70	0.00	0.003	21.23	0.00	0.000	12.68	0.00	0.000
17	0.00	0.00	1.000	4.45	0.42	0.990	12.00	0.00	0.368	16.50	0.00	0.001	15.27	0.25	0.000	6.02	0.00	0.000
18	0.00	0.00	1.000	0.00	0.28	0.979	11.50	0.00	0.350	19.09	0.00	0.000	14.88	0.00	0.000	9.29	0.00	0.000
19	0.00	0.00	1.000	0.20	0.00	0.945	16.38	0.00	0.329	18.31	0.10	0.000	10.11	0.00	0.000	10.29	0.00	0.000
20	1.31	0.00	1.000	3.61	0.00	0.750	7.72	0.00	0.309	21.07	0.00	0.000	8.39	0.00	0.000	7.59	0.00	0.000
21	4.29	0.00	1.000	6.59	0.00	0.936	13.59	0.00	0.290	21.77	0.00	0.000	8.70	0.00	0.000	4.39	0.00	0.000
22	2.20	0.97	1.000	6.31	0.42	0.920	12.31	0.00	0.270	15.72	0.00	0.000	7.61	1.85	0.000	1.00	0.00	0.000
23	0.00	0.84	1.000	2.31	0.00	0.900	11.81	0.00	0.250	16.88	0.00	0.000	11.59	1.00	0.000	3.29	0.00	0.000
24	0.00	0.60	1.000	0.00	0.00	0.888	13.22	0.00	0.230	15.79	0.00	0.000	5.41	0.95	0.000	2.00	0.00	0.000
25	0.00	1.11	1.000	0.00	0.00	0.867	14.81	0.00	0.210	21.95	0.00	0.000	7.72	0.00	0.000	5.18	0.00	0.000
26	0.00	0.25	1.000	0.00	0.00	0.849	17.89	0.00	0.195	20.27	0.00	0.000	17.64	0.00	0.000	10.75	0.00	0.000
27	0.00	0.00	1.000	0.31	0.00	0.821	17.50	0.00	0.173	18.29	0.00	0.000	12.47	0.00	0.000	10.47	0.00	0.000
28	0.00	0.42	1.000	0.00	0.00	0.801	15.39	0.00	0.158	20.97	0.00	0.000	13.66	0.00	0.000	5.89	0.00	0.000
29	2.38	0.14	1.000	0.31	0.00	0.775	19.07	0.00	0.140	28.54	0.00	0.000	15.36	0.00	0.000	9.79	0.00	0.000
30	0.00	0.35	1.000	0.00	0.00	0.750	25.97	0.00	0.125	19.48	0.00	0.000	15.25	0.00	0.000	8.50	0.00	0.000
31				0.00	0.00	0.720	13.93	0.20	0.000	14.36	0.00	0.000						

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RANGO/MARTINEC MODEL VERSION RC1-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/ 6/87

WATERSHED MELT AND RUNOFF COEFFICIENTS

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	1	15	30	1	15	30	1	15	30	1	15	30	1	15	30	1	15	30
DATA FOR ZONE 1:																		
MELT FACTORS	0.050	0.050	0.050	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070
RUNOFF COEF.	0.700	0.300	0.300	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150
FREC. METHOD	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
DATA FOR ZONE 2:																		
MELT FACTORS	0.030	0.030	0.030	0.030	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
RUNOFF COEF.	0.750	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450	0.450
FREC. METHOD	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
DATA FOR ZONE 3:																		
MELT FACTORS	0.030	0.030	0.030	0.030	0.070	0.070	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
RUNOFF COEF.	0.760	0.800	0.800	0.800	0.800	0.800	0.850	0.850	0.300	0.200	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180
FREC. METHOD	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1

NOTE: FREC. METHOD:
0 = FREC. RUNOFF COMPUTED FOR NON-SNOWCOVERED AREAS ONLY
1 = FREC. RUNOFF COMPUTED FOR ALL AREAS

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/ 6/82

COMPUTED DAILY RUNOFF FOR ZONE 1

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	780.2	0.0	0.0	24.3	0.0
2	0.0	268.4	0.0	0.0	157.8	0.0
3	0.0	538.1	0.0	0.0	60.7	0.0
4	0.0	296.0	0.0	0.0	0.0	0.0
5	737.9	331.7	0.0	0.0	109.3	0.0
6	867.8	412.9	0.0	0.0	0.0	0.0
7	0.0	681.5	0.0	400.4	0.0	0.0
8	0.0	225.3	0.0	0.0	133.5	48.4
9	107.2	124.3	0.0	0.0	0.0	97.1
10	1609.0	193.5	0.0	0.0	0.0	279.2
11	78.1	284.4	0.0	0.0	36.4	97.1
12	0.0	44.0	0.0	0.0	0.0	0.0
13	0.0	43.9	0.0	109.3	0.0	0.0
14	1218.1	237.0	0.0	0.0	12.1	36.4
15	2280.4	727.9	0.0	0.0	0.0	0.0
16	810.4	249.6	0.0	0.0	0.0	0.0
17	585.1	175.8	0.0	0.0	0.0	0.0
18	704.7	121.1	0.0	0.0	0.0	0.0
19	808.8	33.1	0.0	0.0	0.0	0.0
20	906.1	30.5	0.0	0.0	0.0	0.0
21	900.9	16.4	0.0	0.0	0.0	0.0
22	1205.3	135.3	0.0	24.3	145.7	0.0
23	908.1	0.0	0.0	0.0	509.9	0.0
24	1404.2	0.0	0.0	0.0	424.9	0.0
25	670.8	0.0	0.0	24.3	145.7	0.0
26	311.3	0.0	0.0	0.0	0.0	0.0
27	369.0	0.0	0.0	0.0	0.0	0.0
28	645.7	0.0	0.0	0.0	0.0	0.0
29	558.5	0.0	0.0	0.0	0.0	0.0
30	686.9	0.0	0.0	36.4	0.0	0.0
31		0.0		0.0	0.0	

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELMORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/ 6/82

COMPUTED DAILY RUNOFF FOR ZONE 2

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	329.8	793.8	0.0	0.0	0.0
2	0.0	648.2	810.0	0.0	260.1	0.0
3	0.0	1786.2	1088.1	0.0	100.0	0.0
4	0.0	1481.5	1167.9	0.0	0.0	0.0
5	0.0	1713.3	1107.8	0.0	180.0	0.0
6	0.0	1597.1	1099.4	0.0	0.0	0.0
7	0.0	2507.9	887.4	660.2	0.0	0.0
8	0.0	1873.8	1133.1	0.0	220.1	80.0
9	0.0	1598.6	1107.6	0.0	0.0	160.0
10	0.0	2390.7	746.4	0.0	0.0	460.1
11	0.0	2932.5	634.1	0.0	60.0	160.0
12	0.0	292.5	394.5	0.0	0.0	0.0
13	0.0	0.0	345.6	180.0	0.0	0.0
14	0.0	2185.4	181.8	0.0	20.0	60.0
15	162.0	308.3	113.5	0.0	0.0	0.0
16	0.0	4859.7	10.5	0.0	0.0	0.0
17	256.5	6885.7	0.0	0.0	0.0	0.0
18	728.2	2844.6	0.0	0.0	0.0	0.0
19	1466.8	4205.3	0.0	0.0	0.0	0.0
20	2221.0	5841.4	0.0	0.0	0.0	0.0
21	2670.9	5912.5	0.0	0.0	0.0	0.0
22	2322.4	7132.0	0.0	40.0	240.1	0.0
23	1370.6	3531.4	0.0	0.0	840.2	0.0
24	0.0	2399.7	0.0	0.0	700.2	0.0
25	1505.8	0.0	0.0	40.0	240.1	0.0
26	109.2	1073.2	0.0	0.0	0.0	0.0
27	603.4	1876.0	0.0	0.0	0.0	0.0
28	1487.6	1482.8	0.0	0.0	0.0	0.0
29	1973.1	1509.9	0.0	0.0	0.0	0.0
30	727.3	1080.5	0.0	40.0	0.0	0.0
31		1110.7	0.0	0.0	0.0	0.0

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RANGO MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORIE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/ 6/82

COMPUTED DAILY RUNOFF FOR JUNE 3

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS	COMPUTED RUNOFF CFS
1	0.0	0.0	0.0	0.0	0.0	898.8	759.4	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	743.4	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	30.4	30.4	2090.4	0.0	460.7	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	691.9	691.9	5682.7	0.0	478.7	1518.8	0.0	0.0	0.0	0.0	0.0
5	0.0	131.6	131.6	5931.0	0.0	335.2	506.3	0.0	0.0	0.0	0.0	0.0
6	0.0	0.0	0.0	6052.5	0.0	366.2	0.0	0.0	0.0	1265.7	0.0	0.0
7	0.0	941.7	941.7	5997.9	0.0	653.5	759.4	0.0	0.0	0.0	0.0	0.0
8	0.0	604.1	604.1	13728.5	0.0	318.6	1139.1	0.0	0.0	1265.7	0.0	0.0
9	0.0	1096.9	1096.9	16929.8	0.0	264.8	0.0	0.0	0.0	2531.3	0.0	0.0
10	0.0	1977.8	1977.8	11459.8	0.0	268.3	886.0	0.0	0.0	3543.8	0.0	0.0
11	0.0	2217.4	2217.4	10807.7	0.0	243.3	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	6657.1	0.0	172.3	253.1	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	7864.5	0.0	698.5	759.4	0.0	0.0	0.0	0.0	0.0
14	0.0	1566.0	1566.0	5743.4	0.0	71.4	1518.8	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	2533.7	0.0	53.5	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	1560.6	0.0	29.6	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	3516.7	3516.7	2608.3	0.0	5.8	632.8	0.0	0.0	0.0	0.0	0.0
18	0.0	152.0	152.0	2377.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	3183.0	0.0	253.1	0.0	0.0	0.0	0.0	0.0	0.0
20	442.1	2700.8	2700.8	1409.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	1447.9	4857.6	4857.6	2327.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	742.5	4949.7	4949.7	1963.1	0.0	0.0	4682.9	0.0	0.0	0.0	0.0	0.0
23	0.0	1637.3	1637.3	1743.9	0.0	0.0	2531.3	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	1795.9	0.0	0.0	2404.8	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	1837.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	2060.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	200.4	200.4	1788.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	1436.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	803.3	189.2	189.2	1576.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	0.0	0.0	1917.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	506.3	0.0	0.0	0.0	0.0	0.0	0.0

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/ 6/82

DAY	STREAMFLOW FOR APRIL			STREAMFLOW FOR MAY			STREAMFLOW FOR JUNE			STREAMFLOW FOR JULY			STREAMFLOW FOR AUGUST			STREAMFLOW FOR SEPTEMBER		
	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS
1	219.	155.	1534.	1213.	1093.	2822.	3021.	4465.	2946.	3129.	442.	560.	658.	366.				
2	209.	243.	1498.	1093.	1097.	2686.	2822.	4358.	2761.	3010.	460.	509.	615.	380.				
3	199.	225.	1475.	1097.	1097.	2686.	2822.	4633.	2576.	2826.	754.	754.	576.	349.				
4	191.	247.	1545.	1248.	1248.	2793.	2793.	5102.	2395.	2359.	453.	529.	540.	389.				
5	189.	266.	1613.	1414.	1414.	3154.	3154.	5709.	2228.	2288.	507.	496.	507.	363.				
6	214.	26.	1655.	1533.	1533.	3507.	3507.	6094.	2068.	2203.	514.	470.	492.	312.				
7	236.	268.	1717.	1948.	1948.	3837.	3837.	5907.	1949.	1938.	492.	457.	523.	340.				
8	225.	255.	1888.	2262.	2262.	4270.	4270.	5811.	1907.	2049.	517.	476.	508.	355.				
9	215.	284.	1957.	2310.	2310.	5337.	5337.	6981.	1776.	1866.	558.	490.	571.	361.				
10	224.	306.	2057.	2052.	2052.	6474.	6474.	7633.	1653.	1755.	535.	434.	735.	623.				
11	274.	334.	2280.	2011.	2011.	7041.	7041.	7674.	1543.	1648.	546.	416.	917.	1641.				
12	264.	288.	2461.	1889.	1889.	7404.	7404.	7602.	1439.	1474.	521.	397.	867.	974.				
13	251.	288.	2273.	1581.	1581.	7392.	7392.	7271.	1354.	1510.	511.	372.	807.	743.				
14	250.	305.	2151.	1528.	1528.	7429.	7429.	6575.	1312.	1456.	535.	447.	754.	644.				
15	309.	375.	2256.	1569.	1569.	7205.	7205.	6023.	1218.	1323.	578.	493.	709.	595.				
16	403.	430.	2221.	1499.	1499.	6711.	6711.	5564.	1130.	1171.	542.	491.	662.	536.				
17	427.	483.	2558.	1529.	1529.	6207.	6207.	5322.	1049.	989.	517.	422.	619.	449.				
18	459.	554.	3122.	1554.	1554.	5839.	5839.	5510.	974.	909.	516.	396.	580.	436.				
19	526.	684.	3133.	1574.	1574.	5509.	5509.	5596.	908.	842.	485.	366.	544.	406.				
20	648.	853.	337.	1923.	1923.	5243.	5243.	5205.	859.	910.	456.	393.	510.	370.				
21	855.	983.	3840.	2522.	2522.	4884.	4884.	4733.	799.	897.	429.	323.	479.	359.				
22	1131.	1105.	4515.	3443.	3443.	4629.	4629.	4519.	746.	770.	463.	262.	451.	353.				
23	1333.	1258.	5118.	4257.	4257.	4368.	4368.	4505.	700.	729.	719.	431.	425.	333.				
24	1391.	1240.	5069.	4555.	4555.	4119.	4119.	4552.	654.	811.	924.	841.	400.	325.				
25	1404.	995.	4761.	3811.	3811.	3900.	3900.	4358.	613.	784.	062.	743.	378.	320.				
26	1437.	903.	4321.	3368.	3368.	3711.	3711.	4202.	577.	701.	1008.	621.	357.	317.				
27	1367.	858.	4031.	3382.	3382.	3553.	3553.	4107.	541.	592.	936.	479.	298.	288.				
28	1354.	959.	3836.	3636.	3636.	3384.	3384.	3903.	508.	582.	870.	486.	320.	288.				
29	1432.	1171.	3620.	3959.	3959.	3209.	3209.	3467.	477.	510.	610.	453.	303.	293.				
30	1550.	1311.	3431.	4111.	4111.	3067.	3067.	3134.	450.	729.	755.	334.	287.	300.				
31			3217.	4292.	4292.			434.	434.	434.	704.	329.						

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.
SUMMARY OF THE MODEL RUN FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/ 6/82

NASH-SUTCLIFFE GOODNESS OF FIT METHOD - NSR#2 = 0.8978

ACTUAL SEASON VOLUME = 324717.000 CFS-DAYS

COMPUTED SEASON VOLUME = 326164.406 CFS-DAYS

SEASONAL DIFFERENCE IN PERCENT = 0.44

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RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/12/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 1

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.44	1.000	4.98	0.73	0.588	12.95	0.00	0.065	30.77	0.00	0.000	29.74	0.02	0.000	21.74	0.00	0.000
2	0.00	0.49	1.000	9.36	0.06	0.555	13.36	0.00	0.055	29.27	0.00	0.000	32.56	0.13	0.000	23.87	0.00	0.000
3	0.00	0.00	1.000	12.46	0.32	0.520	17.25	0.00	0.045	26.86	0.00	0.000	30.30	0.05	0.000	23.16	0.00	0.000
4	0.00	0.00	1.000	9.48	0.12	0.485	18.26	0.00	0.039	28.26	0.00	0.000	31.27	0.00	0.000	24.76	0.00	0.000
5	1.86	0.08	1.000	13.26	0.10	0.460	20.15	0.00	0.030	28.85	0.00	0.000	27.58	0.09	0.000	25.46	0.00	0.000
6	2.45	0.04	1.000	14.15	0.19	0.430	23.44	0.00	0.022	29.36	0.00	0.000	30.57	0.00	0.000	22.27	0.00	0.000
7	0.00	0.04	1.000	14.66	0.47	0.400	20.65	0.00	0.013	29.06	0.33	0.000	32.27	0.00	0.000	27.47	0.00	0.000
8	0.00	0.00	1.000	13.66	0.04	0.378	23.87	0.00	0.005	29.36	0.00	0.000	30.47	0.11	0.000	26.48	0.04	0.000
9	0.15	0.08	1.000	10.18	0.00	0.350	27.57	0.00	0.000	31.06	0.00	0.000	28.87	0.00	0.000	20.98	0.08	0.000
10	5.25	0.00	1.000	13.77	0.04	0.330	24.86	0.00	0.000	33.36	0.00	0.000	30.98	0.00	0.000	22.47	0.23	0.000
11	0.06	0.36	1.000	16.47	0.12	0.310	24.06	0.00	0.000	31.97	0.00	0.000	28.86	0.03	0.000	19.65	0.08	0.000
12	0.00	0.00	1.000	4.98	0.00	0.290	22.36	0.00	0.000	32.27	0.00	0.000	24.07	0.00	0.000	18.16	0.00	0.000
13	0.00	0.08	0.993	5.46	0.00	0.270	21.96	0.00	0.000	30.06	0.09	0.000	25.37	0.00	0.000	19.47	0.00	0.000
14	3.73	0.00	0.983	10.58	0.16	0.250	21.86	0.00	0.000	27.86	0.00	0.000	26.46	0.01	0.000	21.97	0.03	0.000
15	7.65	0.00	0.972	6.17	0.60	0.235	19.55	0.00	0.000	27.46	0.00	0.000	27.77	0.00	0.000	22.66	0.00	0.000
16	6.95	0.00	0.960	8.97	0.17	0.215	21.15	0.00	0.000	30.06	0.00	0.000	25.69	0.00	0.000	23.56	0.00	0.000
17	8.75	0.00	0.950	10.88	0.12	0.200	25.86	0.00	0.000	30.36	0.00	0.000	24.67	0.00	0.000	22.35	0.00	0.000
18	11.15	0.00	0.935	8.27	0.08	0.310	25.36	0.00	0.000	31.46	0.00	0.000	25.27	0.00	0.000	21.16	0.00	0.000
19	13.25	0.00	0.915	13.56	0.00	0.270	26.77	0.00	0.000	32.65	0.00	0.000	24.95	0.00	0.000	22.16	0.00	0.000
20	15.65	0.00	0.893	18.45	0.00	0.240	23.55	0.00	0.000	30.97	0.00	0.000	21.26	0.00	0.000	19.96	0.00	0.000
21	16.16	0.00	0.860	18.96	0.00	0.215	25.96	0.00	0.000	31.17	0.00	0.000	22.06	0.00	0.000	17.26	0.00	0.000
22	15.56	0.29	0.830	20.65	0.12	0.195	26.65	0.00	0.000	31.55	0.02	0.000	22.45	0.12	0.000	14.86	0.00	0.000
23	11.16	0.24	0.800	16.65	0.00	0.175	26.15	0.00	0.000	27.27	0.00	0.000	23.96	0.42	0.000	15.16	0.00	0.000
24	5.16	0.77	0.765	15.05	0.00	0.160	29.05	0.00	0.000	27.66	0.00	0.000	20.75	0.35	0.000	15.86	0.00	0.000
25	4.31	0.32	0.730	5.56	0.00	0.145	29.15	0.00	0.000	28.38	0.02	0.000	23.55	0.12	0.000	16.06	0.00	0.000
26	2.39	0.13	0.705	10.56	0.00	0.130	30.76	0.00	0.000	29.67	0.00	0.000	23.58	0.00	0.000	17.68	0.00	0.000
27	8.46	0.00	0.680	14.65	0.00	0.118	31.36	0.00	0.000	30.16	0.00	0.000	21.37	0.00	0.000	19.37	0.00	0.000
28	11.36	0.12	0.650	14.25	0.00	0.105	28.26	0.00	0.000	29.87	0.00	0.000	22.07	0.00	0.000	18.76	0.00	0.000
29	12.77	0.04	0.630	14.65	0.00	0.095	28.97	0.00	0.000	33.48	0.00	0.000	23.27	0.00	0.000	21.66	0.00	0.000
30	8.36	0.22	0.630	13.75	0.00	0.082	34.87	0.00	0.000	30.86	0.03	0.000	21.88	0.00	0.000	22.36	0.00	0.000
31				14.15	0.00	0.072				31.74	0.00	0.000	21.98	0.00	0.000			

ORIGINAL PAGE 18
OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/12/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 2

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.97	1.000	1.40	0.39	0.990	5.79	0.00	0.530	25.76	0.00	0.000	23.55	0.02	0.000	15.55	0.00	0.000
2	0.00	0.58	1.000	2.67	0.09	0.986	6.67	0.00	0.505	24.26	0.00	0.000	27.32	0.13	0.000	19.58	0.00	0.000
3	0.00	0.00	1.000	6.50	0.70	0.980	9.85	0.00	0.480	20.17	0.00	0.000	30.04	0.05	0.000	17.44	0.00	0.000
4	0.00	0.00	1.000	5.90	0.10	0.975	12.85	0.00	0.453	22.05	0.00	0.000	26.26	0.00	0.000	18.55	0.00	0.000
5	0.00	0.18	1.000	7.05	0.02	0.970	13.25	0.00	0.430	20.97	0.00	0.000	24.72	0.09	0.000	19.49	0.00	0.000
6	0.00	0.09	1.000	6.03	0.36	0.965	15.09	0.00	0.400	22.67	0.00	0.000	26.52	0.00	0.000	17.26	0.00	0.000
7	0.00	0.09	1.000	8.94	0.65	0.958	13.73	0.00	0.375	23.82	0.33	0.000	28.46	0.00	0.000	22.70	0.00	0.000
8	0.00	0.00	1.000	7.94	0.01	0.950	19.58	0.00	0.350	23.88	0.00	0.000	25.70	0.11	0.000	22.90	0.04	0.000
9	0.00	0.18	1.000	6.84	0.00	0.945	23.52	0.00	0.320	24.61	0.00	0.000	24.58	0.00	0.000	17.40	0.08	0.000
10	0.00	0.00	1.000	9.96	0.09	0.935	19.38	0.00	0.295	27.88	0.00	0.000	27.40	0.00	0.000	17.70	0.23	0.000
11	0.00	0.47	1.000	11.70	0.26	0.928	18.82	0.00	0.270	27.20	0.00	0.000	23.38	0.03	0.000	12.73	0.08	0.000
12	0.00	0.00	1.000	1.40	0.00	0.920	15.67	0.00	0.240	27.26	0.00	0.000	20.02	0.00	0.000	12.44	0.00	0.000
13	0.00	0.18	1.000	0.00	0.00	0.910	15.99	0.00	0.220	24.82	0.09	0.000	21.08	0.00	0.000	14.70	0.00	0.000
14	0.00	0.00	1.000	7.72	0.35	0.900	15.17	0.00	0.110	22.38	0.00	0.000	20.50	0.01	0.000	17.20	0.03	0.000
15	0.73	0.00	1.000	1.64	0.44	0.890	11.91	0.00	0.100	21.50	0.00	0.000	22.76	0.00	0.000	16.94	0.00	0.000
16	0.00	0.00	1.000	4.20	0.11	0.880	14.23	0.00	0.095	23.61	0.00	0.000	23.34	0.00	0.000	18.32	0.00	0.000
17	1.35	0.00	1.000	7.78	0.26	0.870	19.17	0.00	0.088	23.67	0.00	0.000	20.14	0.00	0.000	14.47	0.00	0.000
18	3.03	0.00	1.000	3.26	0.18	0.910	18.67	0.00	0.080	25.50	0.00	0.000	20.26	0.00	0.000	15.44	0.00	0.000
19	5.85	0.00	1.000	7.11	0.00	0.865	21.76	0.00	0.072	25.73	0.00	0.000	17.79	0.00	0.000	16.44	0.00	0.000
20	8.73	0.00	1.000	11.29	0.00	0.825	15.91	0.00	0.065	26.20	0.00	0.000	15.05	0.00	0.000	14.00	0.00	0.000
21	10.44	0.00	1.000	12.99	0.00	0.800	20.00	0.00	0.058	26.64	0.00	0.000	15.61	0.00	0.000	11.05	0.00	0.000
22	9.11	0.62	0.999	13.73	0.26	0.777	19.73	0.00	0.050	23.91	0.02	0.000	15.29	0.12	0.000	8.17	0.00	0.000
23	5.44	0.53	0.990	9.73	0.00	0.755	19.23	0.00	0.045	22.26	0.00	0.000	17.99	0.42	0.000	9.44	0.00	0.000
24	0.00	0.63	0.980	7.41	0.00	0.730	21.41	0.00	0.035	21.94	0.00	0.000	13.35	0.35	0.000	9.17	0.00	0.000
25	5.76	0.70	0.970	0.00	0.00	0.700	22.23	0.00	0.029	25.28	0.02	0.000	15.91	0.12	0.000	10.82	0.00	0.000
26	2.48	0.19	0.961	4.11	0.00	0.680	24.55	0.00	0.022	25.14	0.00	0.000	20.72	0.00	0.000	14.34	0.00	0.000
27	2.49	0.00	0.950	7.73	0.00	0.655	24.67	0.00	0.015	24.44	0.00	0.000	17.08	0.00	0.000	15.08	0.00	0.000
28	5.88	0.26	0.940	6.85	0.00	0.630	22.05	0.00	0.008	25.58	0.00	0.000	18.02	0.00	0.000	12.55	0.00	0.000
29	7.76	0.09	0.930	7.73	0.00	0.600	24.20	0.00	0.001	31.10	0.00	0.000	19.46	0.00	0.000	15.94	0.00	0.000
30	2.88	0.28	0.995	6.35	0.00	0.578	30.58	0.00	0.000	25.38	0.03	0.000	18.78	0.00	0.000	15.67	0.00	0.000
31				7.23	0.00	0.558				23.15	0.00	0.000	18.40	0.00	0.000			

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/12/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 3

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	1.45	1.000	0.00	0.30	0.995	0.00	0.00	0.935	21.15	0.00	0.051	17.85	0.30	0.000	9.85	0.00	0.000
2	0.00	0.66	1.000	0.00	0.12	0.992	0.53	0.00	0.929	19.65	0.00	0.041	22.49	0.00	0.000	15.63	0.00	0.000
3	0.00	0.00	1.000	1.01	1.06	0.989	3.05	0.00	0.920	14.03	0.00	0.031	29.84	0.00	0.000	12.17	0.00	0.000
4	0.00	0.00	1.000	2.61	0.10	0.987	6.35	0.00	0.910	16.35	0.00	0.021	21.65	0.60	0.000	12.85	0.00	0.000
5	0.00	0.26	1.000	1.35	0.00	0.985	6.87	0.00	0.900	13.73	0.00	0.011	22.09	0.20	0.000	14.01	0.00	0.000
6	0.00	0.13	1.000	0.00	0.51	0.981	7.42	0.00	0.885	16.53	0.00	0.001	22.79	0.00	0.000	12.65	0.50	0.000
7	0.00	0.13	1.000	3.67	0.82	0.979	7.37	0.00	0.845	18.99	0.10	0.000	24.95	0.30	0.000	18.31	0.00	0.000
8	0.00	0.00	1.000	2.67	0.00	0.975	15.63	0.00	0.845	18.83	0.00	0.000	21.31	0.45	0.000	19.61	0.50	0.000
9	0.00	0.26	1.000	3.77	0.00	0.970	19.79	0.00	0.810	18.69	0.00	0.000	20.63	0.00	0.000	14.11	1.00	0.000
10	0.00	0.00	1.000	6.45	0.13	0.968	14.33	0.00	0.760	22.83	0.00	0.000	24.11	0.35	0.000	13.31	1.40	0.000
11	0.00	0.58	1.000	7.31	0.40	0.962	13.99	0.00	0.710	22.81	0.00	0.000	18.33	0.00	0.000	6.37	0.00	0.000
12	0.00	0.00	1.000	0.00	0.00	0.958	9.53	0.00	0.660	22.65	0.00	0.000	16.29	0.10	0.000	7.17	0.00	0.000
13	0.00	0.26	1.000	0.00	0.00	0.954	10.51	0.10	0.610	19.99	0.20	0.000	17.13	0.30	0.000	10.31	0.00	0.000
14	0.00	0.00	1.000	5.09	0.53	0.950	9.03	0.00	0.570	17.33	0.00	0.000	15.01	0.60	0.000	12.81	0.00	0.000
15	0.00	0.00	1.000	0.00	0.40	0.947	4.89	0.00	0.540	16.01	0.00	0.000	18.15	0.00	0.000	11.67	0.00	0.000
16	0.00	0.00	1.000	0.00	0.10	0.941	7.87	0.00	0.510	17.69	0.00	0.000	21.56	0.00	0.000	13.49	0.00	0.000
17	0.00	0.00	1.000	4.93	0.40	0.938	13.03	0.00	0.480	17.53	0.00	0.000	15.97	0.25	0.000	7.23	0.00	0.000
18	0.00	0.00	1.000	0.00	0.26	0.999	12.53	0.00	0.456	20.01	0.00	0.000	15.65	0.00	0.000	10.17	0.00	0.000
19	0.00	0.00	1.000	1.19	0.00	0.996	17.15	0.00	0.435	19.37	0.10	0.000	11.21	0.00	0.000	11.17	0.00	0.000
20	2.37	0.00	1.000	4.71	0.00	0.992	8.89	0.00	0.410	21.81	0.00	0.000	9.35	0.00	0.000	8.51	0.00	0.000
21	5.17	0.00	1.000	7.51	0.00	0.990	14.51	0.00	0.390	22.47	0.00	0.000	9.69	0.00	0.000	5.35	0.00	0.000
22	3.19	0.92	1.000	7.37	0.40	0.988	13.37	0.00	0.370	16.89	0.00	0.000	8.71	1.85	0.000	2.03	0.00	0.000
23	0.17	0.79	1.000	3.37	0.00	0.983	12.87	0.00	0.350	17.65	0.00	0.000	12.51	1.00	0.000	4.17	0.00	0.000
24	0.00	0.60	1.000	0.39	0.00	0.980	14.39	0.00	0.330	16.67	0.00	0.000	6.55	0.95	0.000	3.03	0.00	0.000
25	0.00	1.06	1.000	0.00	0.00	0.978	15.87	0.00	0.315	22.43	0.00	0.000	8.89	0.00	0.000	5.99	0.00	0.000
26	0.00	0.24	1.000	0.00	0.00	0.970	18.85	0.00	0.299	20.97	0.00	0.000	18.09	0.00	0.000	11.27	0.00	0.000
27	0.00	0.00	1.000	1.37	0.00	0.966	18.53	0.00	0.280	19.17	0.00	0.000	13.13	0.00	0.000	11.13	0.00	0.000
28	0.83	0.40	1.000	0.05	0.00	0.960	16.35	0.00	0.265	21.63	0.00	0.000	14.29	0.00	0.000	6.85	0.00	0.000
29	3.15	0.13	1.000	1.37	0.00	0.955	19.81	0.00	0.253	28.90	0.00	0.000	15.95	0.00	0.000	10.67	0.00	0.000
30	0.00	0.34	0.999	0.00	0.00	0.950	26.63	0.00	0.240	20.33	0.00	0.000	15.77	0.00	0.000	9.53	0.00	0.000
31				0.87	0.00	0.944				15.26	0.20	0.000	14.95	0.00	0.000			

ORIGINAL PAGE IS
OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/12/82

WATERSHED MELT AND RUNOFF COEFFICIENTS

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	1	15	16 - 30	1	15	16 - 30	1	15	16 - 30	1	15	16 - 30	1	15	16 - 30	1	15	16 - 30
DATA FOR ZONE 1:																		
MELT FACTORS	0.030	0.030	0.030	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070
RUNOFF COEF.	0.750	0.400	0.400	0.250	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180
PREC. METHOD	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1
DATA FOR ZONE 2:																		
MELT FACTORS	0.030	0.030	0.030	0.030	0.100	0.100	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
RUNOFF COEF.	0.700	0.700	0.700	0.650	0.400	0.400	0.500	0.450	0.450	0.200	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180
PREC. METHOD	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
DATA FOR ZONE 3:																		
MELT FACTORS	0.030	0.030	0.030	0.040	0.100	0.100	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160	0.160
RUNOFF COEF.	0.850	0.850	0.850	0.850	0.850	0.850	0.800	0.800	0.800	0.600	0.300	0.300	0.220	0.220	0.220	0.220	0.220	0.220
PREC. METHOD	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1

NOTE: PREC. METHOD:
0 = PREC. RUNOFF COMPUTED FOR NON-SNOWCOVERED AREAS ONLY
1 = PREC. RUNOFF COMPUTED FOR ALL AREAS

ORIGINAL PAGE IS
OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION KCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/12/82

COMPUTED DAILY RUNOFF FOR ZONE 1

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	163.2	13.7	0.0	4.6	0.0
2	0.0	125.9	11.9	0.0	30.2	0.0
3	0.0	195.9	12.6	0.0	11.6	0.0
4	0.0	123.8	11.6	0.0	0.0	0.0
5	90.0	155.2	9.8	0.0	20.9	0.0
6	118.6	172.4	8.4	0.0	0.0	0.0
7	0.0	223.4	4.4	76.7	0.0	0.0
8	0.0	124.7	1.9	0.0	25.6	0.0
9	7.3	80.5	0.0	0.0	0.0	9.3
10	254.1	111.3	0.0	0.0	0.0	18.6
11	2.9	142.0	0.0	0.0	0.0	53.4
12	0.0	32.6	0.0	0.0	7.0	18.6
13	0.0	33.3	0.0	0.0	0.0	0.0
14	177.5	98.5	0.0	20.9	0.0	0.0
15	359.9	180.9	0.0	0.0	2.3	7.0
16	172.2	70.9	0.0	0.0	0.0	0.0
17	214.6	63.3	0.0	0.0	0.0	0.0
18	269.1	60.3	0.0	0.0	0.0	0.0
19	313.0	59.5	0.0	0.0	0.0	0.0
20	360.8	72.0	0.0	0.0	0.0	0.0
21	356.7	66.3	0.0	0.0	0.0	0.0
22	356.8	93.4	0.0	0.0	0.0	0.0
23	255.2	47.4	0.0	4.6	27.9	0.0
24	193.3	39.2	0.0	0.0	97.6	0.0
25	135.2	13.1	0.0	0.0	81.3	0.0
26	63.3	22.3	0.0	4.6	27.9	0.0
27	148.5	28.1	0.0	0.0	0.0	0.0
28	212.3	24.3	0.0	0.0	0.0	0.0
29	215.3	22.6	0.0	0.0	0.0	0.0
30	178.0	18.3	0.0	7.0	0.0	0.0
31		16.6		0.0	0.0	0.0

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/12/82

COMPUTED DAILY RUNOFF FOR ZONE 2

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	75.6	600.7	0.0	10.1	0.0
2	0.0	145.8	659.4	0.0	65.4	0.0
3	0.0	372.8	925.5	0.0	25.2	0.0
4	0.0	318.2	1068.5	0.0	0.0	0.0
5	0.0	374.0	1113.6	0.0	45.3	0.0
6	0.0	340.2	1181.6	0.0	0.0	0.0
7	0.0	516.7	1007.9	184.6	0.0	0.0
8	0.0	412.2	1341.5	0.0	55.4	20.1
9	0.0	352.5	1473.3	0.0	0.0	40.3
10	0.0	518.5	1119.1	0.0	0.0	115.8
11	0.0	626.1	994.7	0.0	15.1	40.3
12	0.0	70.2	736.2	0.0	0.0	0.0
13	0.0	0.0	688.6	50.3	0.0	0.0
14	0.0	442.5	326.7	0.0	5.0	15.1
15	42.9	79.6	233.1	0.0	0.0	0.0
16	0.0	726.9	238.2	0.0	0.0	0.0
17	79.3	1196.8	297.2	0.0	0.0	0.0
18	177.9	524.9	263.1	0.0	0.0	0.0
19	343.5	1031.9	276.0	0.0	0.0	0.0
20	512.7	1542.8	182.2	0.0	0.0	0.0
21	613.1	1743.6	204.4	0.0	0.0	0.0
22	535.7	1887.3	173.8	10.1	60.4	0.0
23	326.6	1232.6	152.5	0.0	211.4	0.0
24	0.0	907.6	132.0	0.0	176.2	0.0
25	369.2	0.0	113.6	10.1	60.4	0.0
26	27.1	468.9	95.2	0.0	0.0	0.0
27	138.9	849.5	45.2	0.0	0.0	0.0
28	352.1	724.1	31.1	0.0	0.0	0.0
29	436.1	778.2	4.3	0.0	0.0	0.0
30	171.0	615.8	0.0	15.1	0.0	0.0
31		676.9		0.0	0.0	

ORIGINAL PAGE IS
OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION KCJ-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/12/82

COMPUTED DAILY RUNOFF FOR ZONE 3

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	0.0	0.0	178.2	113.6	0.0
2	0.0	0.0	108.5	133.1	0.0	0.0
3	0.0	58.4	618.1	71.9	0.0	0.0
4	0.0	152.6	1272.9	56.7	227.2	0.0
5	0.0	77.8	1362.0	25.0	75.7	0.0
6	0.0	0.0	1446.5	2.7	0.0	189.3
7	0.0	235.4	1404.3	103.3	113.6	0.0
8	0.0	152.3	2909.2	0.0	170.4	189.3
9	0.0	214.0	3531.0	0.0	0.0	378.6
10	0.0	371.4	2399.0	0.0	132.5	530.0
11	0.0	433.7	2188.0	0.0	0.0	0.0
12	0.0	0.0	1385.5	0.0	37.9	0.0
13	0.0	0.0	1465.9	206.5	113.6	0.0
14	0.0	321.7	1133.8	0.0	227.2	0.0
15	0.0	0.0	581.7	0.0	0.0	0.0
16	0.0	0.0	884.1	0.0	0.0	0.0
17	0.0	712.7	1377.7	0.0	94.6	0.0
18	0.0	0.0	1258.6	0.0	0.0	0.0
19	0.0	173.4	1643.3	51.6	0.0	0.0
20	104.0	483.4	802.9	0.0	0.0	0.0
21	226.9	1087.5	1246.5	0.0	0.0	0.0
22	140.0	1072.1	1089.7	0.0	700.4	0.0
23	7.5	484.6	992.2	0.0	378.6	0.0
24	0.0	55.9	1046.0	0.0	359.7	0.0
25	0.0	0.0	1101.2	0.0	0.0	0.0
26	0.0	0.0	1241.5	0.0	0.0	0.0
27	0.0	193.6	1142.9	0.0	0.0	0.0
28	36.4	7.0	954.4	0.0	0.0	0.0
29	136.2	191.4	1104.0	0.0	0.0	0.0
30	0.0	0.0	1407.8	2.0	0.0	0.0
31	0.0	120.1		103.3	0.0	

ORIGINAL PAGE 18
OF POOR QUALITY

RANGO/HARTINEC MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO --- DRAINAGE AREA 216 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/12/82

DAY	STREAMFLOW FOR APRIL		STREAMFLOW FOR MAY		STREAMFLOW FOR JUNE		STREAMFLOW FOR JULY		STREAMFLOW FOR AUGUST		STREAMFLOW FOR SEPTEMBER	
	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	ACTUAL CFS	COMPUTED CFS	ACTUAL CFS
1	46.	45.	434.	331.	952.	1160.	1243.	780.	63.	83.	103.	49.
2	44.	50.	410.	298.	908.	1170.	1069.	745.	67.	84.	94.	47.
3	41.	48.	406.	310.	924.	1280.	919.	680.	68.	85.	87.	44.
4	39.	52.	433.	364.	1057.	1420.	789.	610.	69.	80.	80.	51.
5	38.	55.	455.	435.	1266.	1540.	680.	540.	79.	84.	74.	61.
6	41.	57.	471.	500.	1471.	1630.	585.	486.	80.	87.	73.	61.
7	44.	57.	495.	675.	1654.	1560.	519.	439.	77.	87.	77.	54.
8	41.	58.	547.	770.	1877.	1630.	483.	435.	83.	105.	76.	59.
9	39.	64.	565.	735.	2329.	2040.	419.	375.	90.	102.	92.	84.
10	41.	70.	591.	660.	2730.	2310.	365.	347.	86.	97.	126.	179.
11	49.	75.	656.	670.	2857.	2150.	320.	325.	87.	91.	160.	278.
12	46.	75.	687.	615.	2858.	2130.	282.	298.	82.	104.	148.	169.
13	43.	66.	600.	527.	2723.	2000.	258.	272.	81.	111.	134.	139.
14	44.	72.	556.	522.	2580.	1860.	251.	262.	84.	120.	122.	121.
15	55.	93.	573.	545.	2340.	1670.	223.	222.	92.	129.	113.	107.
16	73.	114.	652.	527.	2082.	1530.	199.	193.	85.	123.	103.	94.
17	83.	139.	634.	563.	1941.	1500.	178.	167.	80.	114.	94.	80.
18	102.	175.	764.	572.	1887.	1570.	160.	151.	79.	109.	87.	73.
19	137.	220.	768.	595.	1844.	1490.	146.	141.	73.	105.	80.	66.
20	194.	280.	888.	695.	1809.	1300.	135.	131.	68.	104.	74.	56.
21	283.	316.	1130.	800.	1691.	1150.	123.	125.	63.	88.	68.	54.
22	383.	379.	1418.	978.	1640.	1100.	112.	131.	75.	66.	64.	53.
23	448.	407.	1625.	1140.	1570.	1110.	103.	133.	125.	138.	59.	51.
24	451.	279.	1610.	1100.	1500.	1120.	95.	129.	174.	143.	55.	50.
25	430.	301.	1457.	900.	1448.	1100.	87.	120.	203.	131.	52.	50.
26	424.	255.	1241.	852.	1416.	1060.	81.	118.	188.	107.	49.	49.
27	388.	228.	1148.	930.	1396.	1040.	75.	109.	148.	102.	46.	48.
28	388.	255.	1121.	1020.	1354.	978.	69.	102.	152.	97.	43.	49.
29	422.	328.	1074.	1090.	1300.	864.	65.	96.	137.	80.	41.	47.
30	452.	361.	1044.	1090.	1283.	780.	61.	84.	124.	53.	39.	50.
31			989.	1130.			60.	88.	113.	52.		

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR SOUTH FORK OF THE RIO GRANDE AT SOUTH FORK, CO -- DRAINAGE AREA 216 SQ.MI.

SUMMARY OF THE MODEL RUN FOR THE YEAR OF 1981 RUN OF MODEL MADE 4/12/82

NASH-SUTCLIFFE GOODNESS OF FIT METHOD - NSR#2 = 0.8344

ACTUAL SEASON VOLUME = 84340.000 CFS-DAYS

COMPUTED SEASON VOLUME = 99100.180 CFS-DAYS

SEASONAL DIFFERENCE IN PERCENT = 14.69

Type Curve Technique
Rio Grande 1980

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/13/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 1

DAY

APRIL

M6Y

JUNE

人

AUGUST

SEPTEMBER

	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.41	1.000	5.18	0.75	0.255	13.37	0.00	0.000	31.06	0.00	0.000	30.12	0.02	0.000	22.12	0.00	0.000	22.12	0.00	0.000
2	0.00	0.49	1.000	9.74	0.06	0.240	13.74	0.00	0.000	29.56	0.00	0.000	32.87	0.13	0.000	24.12	0.00	0.000	24.12	0.00	0.000
3	0.00	0.00	1.000	12.81	0.30	0.218	17.68	0.00	0.000	27.24	0.00	0.000	30.31	0.05	0.000	23.49	0.00	0.000	23.49	0.00	0.000
4	0.00	0.00	0.999	9.68	0.12	0.200	18.62	0.00	0.000	28.62	0.00	0.000	31.56	0.00	0.000	25.12	0.00	0.000	25.12	0.00	0.000
5	2.24	0.08	0.998	13.62	0.10	0.185	20.55	0.00	0.000	29.30	0.00	0.000	27.75	0.00	0.000	25.81	0.00	0.000	25.81	0.00	0.000
6	2.87	0.04	0.995	14.61	0.18	0.170	23.93	0.00	0.000	29.74	0.00	0.000	30.81	0.00	0.000	22.56	0.00	0.000	22.56	0.00	0.000
7	0.00	0.04	0.992	14.99	0.46	0.160	21.05	0.00	0.000	29.37	0.33	0.000	32.50	0.00	0.000	27.74	0.00	0.000	27.74	0.00	0.000
8	0.00	0.00	0.990	13.99	0.04	0.150	24.12	0.00	0.000	29.68	0.00	0.000	30.74	0.11	0.000	26.68	0.04	0.000	26.68	0.04	0.000
9	0.55	0.08	0.986	13.37	0.00	0.140	27.81	0.00	0.000	31.43	0.00	0.000	29.12	0.00	0.000	21.18	0.08	0.000	21.18	0.08	0.000
10	5.68	0.00	0.980	14.00	0.04	0.130	25.18	0.00	0.000	33.68	0.00	0.000	31.18	0.00	0.000	22.74	0.23	0.000	22.74	0.23	0.000
11	0.43	0.35	0.978	16.74	0.11	0.120	24.37	0.00	0.000	32.24	0.00	0.000	29.18	0.03	0.000	20.05	0.08	0.000	20.05	0.08	0.000
12	0.00	0.00	0.971	5.18	0.00	0.115	22.74	0.00	0.000	32.56	0.00	0.000	24.31	0.00	0.000	18.49	0.00	0.000	18.49	0.00	0.000
13	0.00	0.08	0.968	5.81	0.00	0.108	22.31	0.00	0.000	30.37	0.09	0.000	25.62	0.00	0.000	19.74	0.00	0.000	19.74	0.00	0.000
14	4.30	0.00	0.960	10.75	0.15	0.100	22.24	0.00	0.000	28.18	0.00	0.000	26.81	0.01	0.000	22.24	0.03	0.000	22.24	0.03	0.000
15	8.05	0.00	0.951	6.43	0.61	0.091	19.99	0.00	0.000	27.81	0.00	0.000	28.06	0.00	0.000	22.99	0.00	0.000	22.99	0.00	0.000
16	7.37	0.00	0.945	9.24	0.17	0.090	21.45	0.00	0.000	30.43	0.00	0.000	25.81	0.00	0.000	23.87	0.00	0.000	23.87	0.00	0.000
17	9.18	0.00	0.935	11.06	0.11	0.083	26.24	0.00	0.000	30.74	0.00	0.000	24.93	0.00	0.000	22.80	0.00	0.000	22.80	0.00	0.000
18	11.61	0.00	0.925	8.56	0.08	0.023	25.74	0.00	0.000	31.81	0.00	0.000	25.56	0.00	0.000	21.49	0.00	0.000	21.49	0.00	0.000
19	13.68	0.00	0.910	13.93	0.00	0.018	27.06	0.00	0.000	33.05	0.00	0.000	25.37	0.00	0.000	22.49	0.00	0.000	22.49	0.00	0.000
20	16.05	0.00	0.890	18.87	0.00	0.010	23.99	0.00	0.000	31.24	0.00	0.000	21.62	0.00	0.000	20.31	0.00	0.000	20.31	0.00	0.000
21	16.49	0.00	0.800	19.31	0.00	0.008	26.31	0.00	0.000	31.43	0.00	0.000	22.43	0.00	0.000	17.62	0.00	0.000	17.62	0.00	0.000
22	15.93	0.27	0.710	21.05	0.11	0.000	27.05	0.00	0.000	31.99	0.02	0.000	22.87	0.12	0.000	15.24	0.00	0.000	15.24	0.00	0.000
23	11.49	0.23	0.650	17.05	0.00	0.000	26.55	0.00	0.000	27.56	0.00	0.000	24.31	0.42	0.000	15.49	0.00	0.000	15.49	0.00	0.000
24	5.49	0.78	0.560	15.49	0.00	0.000	29.49	0.00	0.000	27.99	0.00	0.000	21.18	0.35	0.000	16.24	0.00	0.000	16.24	0.00	0.000
25	4.75	0.30	0.500	5.93	0.00	0.000	29.55	0.00	0.000	28.56	0.02	0.000	23.99	0.12	0.000	16.37	0.00	0.000	16.37	0.00	0.000
26	2.50	0.13	0.440	10.93	0.00	0.000	31.12	0.00	0.000	29.93	0.00	0.000	23.75	0.00	0.000	17.87	0.00	0.000	17.87	0.00	0.000
27	8.81	0.00	0.400	15.05	0.00	0.000	31.74	0.00	0.000	30.49	0.00	0.000	21.61	0.00	0.000	19.62	0.00	0.000	19.62	0.00	0.000
28	11.68	0.11	0.355	14.68	0.00	0.000	28.62	0.00	0.000	30.12	0.00	0.000	22.31	0.00	0.000	19.12	0.00	0.000	19.12	0.00	0.000
29	13.06	0.04	0.310	13.06	0.00	0.000	29.24	0.00	0.000	33.62	0.00	0.000	23.50	0.00	0.000	21.99	0.00	0.000	21.99	0.00	0.000
30	8.68	0.22	0.280	14.18	0.00	0.000	35.12	0.00	0.000	31.18	0.03	0.000	22.06	0.00	0.000	22.74	0.00	0.000	22.74	0.00	0.000
31				14.55	0.00	0.000				32.24	0.00	0.000	22.18								

RANGO/MARTINEC MODEL VERSION KCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/13/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 2

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	0.98	1.000	1.29	0.38	0.972	5.59	0.00	0.409	25.61	0.00	0.000	23.38	0.02	0.000	15.38	0.00	0.000
2	0.00	0.58	1.000	2.48	0.09	0.959	6.48	0.00	0.399	24.11	0.00	0.000	27.16	0.13	0.000	19.45	0.00	0.000
3	0.00	0.00	1.000	6.32	0.72	0.940	9.64	0.00	0.389	19.98	0.00	0.000	30.05	0.05	0.000	17.27	0.00	0.000
4	0.00	0.00	1.000	5.79	0.10	0.920	11.88	0.00	0.372	21.88	0.00	0.000	26.11	0.00	0.000	18.38	0.00	0.000
5	0.00	0.18	1.000	6.88	0.02	0.900	13.04	0.00	0.360	20.75	0.00	0.000	24.64	0.09	0.000	19.32	0.00	0.000
6	0.00	0.09	1.000	5.80	0.36	0.875	14.85	0.00	0.349	22.48	0.00	0.000	26.40	0.00	0.000	17.11	0.00	0.000
7	0.00	0.09	1.000	8.77	0.66	0.840	13.54	0.00	0.330	23.66	0.33	0.000	28.35	0.00	0.000	22.56	0.00	0.000
8	0.00	0.00	1.000	7.77	0.01	0.805	19.45	0.00	0.319	23.72	0.00	0.000	25.56	0.11	0.000	22.79	0.04	0.000
9	0.00	0.18	1.000	6.74	0.00	0.760	23.40	0.00	0.300	24.43	0.00	0.000	24.45	0.00	0.000	17.29	0.08	0.000
10	0.00	0.00	1.000	9.85	0.09	0.700	19.22	0.00	0.280	27.72	0.00	0.000	27.29	0.00	0.000	17.56	0.23	0.000
11	0.00	0.47	1.000	11.56	0.27	0.600	18.66	0.00	0.260	27.06	0.00	0.000	23.22	0.03	0.000	12.54	0.08	0.000
12	0.00	0.00	1.000	1.29	0.00	0.550	15.48	0.00	0.245	27.11	0.00	0.000	19.90	0.00	0.000	12.27	0.00	0.000
13	0.00	0.18	1.000	0.00	0.00	0.520	15.82	0.00	0.220	24.66	0.09	0.000	20.95	0.00	0.000	14.56	0.00	0.000
14	0.00	0.00	1.000	7.64	0.36	0.480	14.98	0.00	0.005	22.22	0.00	0.000	20.32	0.01	0.000	17.06	0.03	0.000
15	0.54	0.00	1.000	1.51	0.43	0.450	11.69	0.00	0.000	21.32	0.00	0.000	22.61	0.00	0.000	16.77	0.00	0.000
16	0.00	0.00	1.000	4.06	0.11	0.430	14.04	0.00	0.000	23.43	0.00	0.000	23.48	0.00	0.000	18.16	0.00	0.000
17	1.14	0.00	1.000	7.69	0.27	0.400	18.98	0.00	0.000	23.48	0.00	0.000	20.01	0.00	0.000	14.25	0.00	0.000
18	2.80	0.00	1.000	3.11	0.18	0.420	18.48	0.00	0.000	25.32	0.00	0.000	20.11	0.00	0.000	15.27	0.00	0.000
19	5.64	0.00	0.995	6.93	0.00	0.580	21.61	0.00	0.000	25.54	0.00	0.000	17.59	0.00	0.000	16.27	0.00	0.000
20	8.54	0.00	0.985	11.09	0.00	0.551	15.69	0.00	0.000	26.06	0.00	0.000	14.88	0.00	0.000	13.82	0.00	0.000
21	10.27	0.00	0.972	12.82	0.00	0.535	19.82	0.00	0.000	26.51	0.00	0.000	15.43	0.00	0.000	10.88	0.00	0.000
22	8.93	0.63	0.961	13.54	0.27	0.519	19.54	0.00	0.000	23.69	0.02	0.000	15.09	0.12	0.000	7.98	0.00	0.000
23	5.27	0.54	0.950	9.54	0.00	0.500	19.04	0.00	0.000	22.11	0.00	0.000	17.82	0.42	0.000	9.27	0.00	0.000
24	0.00	0.63	0.935	7.19	0.00	0.489	21.19	0.00	0.000	21.77	0.00	0.000	13.14	0.35	0.000	8.98	0.00	0.000
25	5.79	0.72	0.920	0.00	0.00	0.471	22.04	0.00	0.000	25.19	0.02	0.000	15.69	0.12	0.000	10.66	0.00	0.000
26	0.42	0.19	0.905	3.93	0.00	0.461	24.38	0.00	0.000	25.01	0.00	0.000	20.64	0.00	0.000	14.24	0.00	0.000
27	2.32	0.00	0.883	7.54	0.00	0.451	24.48	0.00	0.000	24.27	0.00	0.000	16.95	0.00	0.000	14.95	0.00	0.000
28	5.72	0.27	0.863	6.64	0.00	0.445	21.88	0.00	0.000	25.45	0.00	0.000	17.90	0.00	0.000	12.38	0.00	0.000
29	7.61	0.09	0.840	7.54	0.00	0.435	24.06	0.00	0.000	31.03	0.00	0.000	19.35	0.00	0.000	15.77	0.00	0.000
30	2.72	0.29	0.990	6.14	0.00	0.425	30.45	0.00	0.000	25.22	0.03	0.000	18.69	0.00	0.000	15.48	0.00	0.000
31				7.04	0.00	0.415				22.91	0.00	0.000	18.29	0.00	0.000			

ORIGINAL PAGE IS
OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/13/82

DAILY CLIMATOLOGICAL DATA FOR ZONE 3

DAY	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER	DEGREE DAYS	PREC. IN.	SNOW COVER
1	0.00	1.53	1.000	0.00	0.30	1.000	0.00	0.00	0.917	20.38	0.00	0.119	16.89	0.30	0.000	8.89	0.00	0.000
2	0.00	0.67	1.000	0.00	0.13	1.000	0.00	0.00	0.903	18.88	0.00	0.110	21.68	0.00	0.000	14.97	0.00	0.000
3	0.00	0.00	1.000	0.09	1.11	1.000	1.91	0.00	0.890	13.00	0.00	0.102	29.80	0.00	0.000	11.29	0.00	0.000
4	0.00	0.00	1.000	2.05	0.10	1.000	5.39	0.00	0.870	15.39	0.00	0.095	20.88	0.60	0.000	11.89	0.00	0.000
5	0.00	0.28	1.000	0.39	0.00	1.000	5.81	0.00	0.855	12.52	0.00	0.085	21.64	0.20	0.000	13.09	0.00	0.000
6	0.00	0.14	1.000	0.00	0.54	1.000	6.13	0.00	0.810	15.50	0.00	0.080	22.16	0.00	0.000	11.88	0.50	0.000
7	0.00	0.14	1.000	2.79	0.85	1.000	6.31	0.00	0.770	18.18	0.10	0.070	24.36	0.30	0.000	17.57	0.00	0.000
8	0.00	0.00	1.000	1.79	0.00	1.000	14.97	0.00	0.710	17.98	0.00	0.061	20.57	0.45	0.000	19.05	0.50	0.000
9	0.00	0.28	1.000	3.25	0.00	1.000	19.16	0.00	0.640	17.70	0.00	0.052	19.97	0.00	0.000	13.55	1.00	0.000
10	0.00	0.00	1.000	5.86	0.14	1.000	13.48	0.00	0.560	21.98	0.00	0.045	23.55	0.35	0.000	12.57	1.40	0.000
11	0.00	0.59	1.000	6.57	0.42	1.000	13.18	0.00	0.540	22.07	0.00	0.039	17.48	0.00	0.000	5.31	0.00	0.000
12	0.00	0.00	1.000	0.00	0.00	1.000	8.50	0.00	0.400	21.88	0.00	0.030	15.66	0.10	0.000	6.29	0.00	0.000
13	0.00	0.28	1.000	0.00	0.00	1.000	9.59	0.10	0.320	19.18	0.20	0.022	16.47	0.30	0.000	9.57	0.00	0.000
14	0.00	0.00	1.000	4.64	0.56	1.000	8.00	0.00	0.360	16.48	0.00	0.015	14.09	0.60	0.000	12.07	0.00	0.000
15	0.00	0.00	1.000	0.00	0.40	1.000	3.72	0.00	0.340	15.09	0.00	0.009	17.38	0.00	0.000	10.79	0.00	0.000
16	0.00	0.00	1.000	0.00	0.10	1.000	6.81	0.00	0.320	16.70	0.00	0.001	21.23	0.00	0.000	12.68	0.00	0.000
17	0.00	0.00	1.000	4.45	0.42	1.000	12.00	0.00	0.300	16.50	0.00	0.000	15.27	0.25	0.000	6.02	0.00	0.000
18	0.00	0.00	1.000	0.00	0.28	0.999	11.50	0.00	0.285	19.09	0.00	0.000	14.88	0.00	0.000	9.29	0.00	0.000
19	0.00	0.00	1.000	0.20	0.00	0.997	16.38	0.00	0.270	18.31	0.10	0.000	10.11	0.00	0.000	10.29	0.00	0.000
20	1.21	0.00	1.000	3.61	0.00	0.992	7.72	0.00	0.250	21.07	0.00	0.000	8.39	0.00	0.000	7.59	0.00	0.000
21	4.29	0.00	1.000	6.59	0.00	0.990	13.59	0.00	0.238	21.77	0.00	0.000	8.70	0.00	0.000	4.39	0.00	0.000
22	2.20	0.97	1.000	6.31	0.42	0.988	12.31	0.00	0.223	15.72	0.00	0.000	7.61	1.85	0.000	1.00	0.00	0.000
23	0.00	0.84	1.000	2.31	0.00	0.981	11.81	0.00	0.210	16.88	0.00	0.000	11.59	1.00	0.000	3.29	0.00	0.000
24	0.00	0.60	1.000	0.00	0.00	0.978	13.22	0.00	0.195	15.79	0.00	0.000	5.41	0.95	0.000	2.00	0.00	0.000
25	5.80	1.11	1.000	0.00	0.00	0.970	14.81	0.00	0.183	21.95	0.00	0.000	7.72	0.00	0.000	5.18	0.00	0.000
26	0.00	0.25	1.000	0.00	0.00	0.967	17.89	0.00	0.170	20.27	0.00	0.000	17.64	0.00	0.000	10.75	0.00	0.000
27	0.00	0.00	1.000	0.31	0.00	0.960	17.50	0.00	0.159	18.29	0.00	0.000	12.47	0.00	0.000	10.47	0.00	0.000
28	0.00	0.42	1.000	0.00	0.00	0.952	15.39	0.00	0.148	20.97	0.00	0.000	13.66	0.00	0.000	5.89	0.00	0.000
29	2.38	0.14	1.000	0.31	0.00	0.945	19.07	0.00	0.138	28.54	0.00	0.000	15.36	0.00	0.000	9.79	0.00	0.000
30	0.00	0.35	1.000	0.00	0.00	0.935	25.97	0.00	0.127	19.48	0.00	0.000	15.25	0.00	0.000	8.50	0.00	0.000
31				0.00	0.00	0.925				13.93	0.20	0.000	14.36	0.00	0.000			

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/13/82

WATERSHED MELT AND RUNOFF COEFFICIENTS

	APRIL			MAY			JUNE			JULY			AUGUST			SEPTEMBER		
	1	15	30	1	15	30	1	15	30	1	15	30	1	15	30	1	15	30
DATA FOR ZONE 1:																		
MELT FACTORS	0.050	0.050	0.050	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070
RUNOFF COEF.	0.700	0.300	0.300	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150
PREC. METHOD	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1
DATA FOR ZONE 2:																		
MELT FACTORS	0.030	0.030	0.030	0.030	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
RUNOFF COEF.	0.750	0.650	0.650	0.650	0.650	0.650	0.650	0.650	0.200	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150	0.150
PREC. METHOD	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
DATA FOR ZONE 3:																		
MELT FACTORS	0.030	0.030	0.030	0.030	0.070	0.070	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140	0.140
RUNOFF COEF.	0.760	0.800	0.800	0.800	0.800	0.800	0.850	0.850	0.300	0.200	0.180	0.180	0.180	0.180	0.180	0.180	0.180	0.180
PREC. METHOD	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1

NOTE: PREC. METHOD:
0 = PREC. RUNOFF COMPUTED FOR NON-SNOWCOVERED AREAS ONLY
1 = PREC. RUNOFF COMPUTED FOR ALL AREAS

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RANGO/MARTINEC MODEL VERSION KC1-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/13/82

COMPUTED DAILY RUNOFF FOR ZONE 1

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	790.6	0.0	0.0	24.3	0.0
2	0.0	254.0	0.0	0.0	157.8	0.0
3	0.0	522.1	0.0	0.0	60.7	0.0
4	0.0	281.1	0.0	0.0	0.0	0.0
5	634.2	313.1	0.0	0.0	109.3	0.0
6	810.1	392.4	0.0	0.0	0.0	0.0
7	0.0	672.9	0.0	400.6	0.0	0.0
8	0.0	219.6	0.0	0.0	133.5	0.0
9	153.6	123.4	0.0	0.0	0.0	48.6
10	1576.8	196.9	0.0	0.0	0.0	97.1
11	119.1	288.2	0.0	0.0	36.4	279.2
12	0.0	50.6	0.0	0.0	0.0	97.1
13	0.0	53.3	0.0	109.3	0.0	0.0
14	69.4	255.3	0.0	0.0	12.1	0.0
15	2148.6	722.1	0.0	0.0	0.0	36.4
16	845.5	277.1	0.0	0.0	0.0	0.0
17	1042.0	211.6	0.0	0.0	0.0	0.0
18	1303.8	113.9	0.0	0.0	0.0	0.0
19	1511.3	21.3	0.0	0.0	0.0	0.0
20	1734.2	16.0	0.0	0.0	0.0	0.0
21	1601.6	13.1	0.0	0.0	0.0	0.0
22	1563.2	133.5	0.0	24.3	145.7	0.0
23	1102.2	0.0	0.0	0.0	509.9	0.0
24	1206.6	0.0	0.0	0.0	424.9	0.0
25	652.5	0.0	0.0	24.3	145.7	0.0
26	310.3	0.0	0.0	0.0	0.0	0.0
27	427.8	0.0	0.0	0.0	0.0	0.0
28	675.7	0.0	0.0	0.0	0.0	0.0
29	558.5	0.0	0.0	0.0	0.0	0.0
30	679.7	0.0	0.0	36.4	0.0	0.0
31		0.0	0.0	0.0	0.0	0.0

ORIGINAL PAGE 13
OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/13/82

COMPUTED DAILY RUNOFF FOR ZONE 2

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	326.1	2774.8	0.0	40.0	0.0
2	0.0	650.5	3137.9	0.0	260.1	0.0
3	0.0	1919.5	4551.2	0.0	100.0	0.0
4	0.0	1454.7	5363.6	0.0	0.0	0.0
5	0.0	1627.7	5697.4	0.0	30.0	0.0
6	0.0	1710.0	6290.0	0.0	0.0	0.0
7	0.0	2831.3	5422.9	660.2	0.0	0.0
8	0.0	1643.6	7530.2	0.0	220.1	80.0
9	0.0	1332.2	8519.9	0.0	0.0	160.0
10	0.0	2027.2	4531.4	0.0	0.0	460.1
11	0.0	2740.1	5888.2	0.0	60.0	160.0
12	0.0	184.5	4602.9	0.0	0.0	0.0
13	0.0	0.0	4224.0	180.0	0.0	0.0
14	0.0	2576.6	90.9	0.0	20.0	60.0
15	162.0	176.7	0.0	0.0	0.0	0.0
16	0.0	4787.1	0.0	0.0	0.0	0.0
17	296.5	5137.6	0.0	0.0	0.0	0.0
18	728.2	2933.1	0.0	0.0	0.0	0.0
19	1459.5	4878.2	0.0	0.0	0.0	0.0
20	2187.7	7416.2	0.0	0.0	0.0	0.0
21	2596.1	8324.1	0.0	0.0	0.0	0.0
22	2444.8	9654.5	0.0	40.0	240.1	0.0
23	1536.1	5789.1	0.0	0.0	840.2	0.0
24	0.0	4267.1	0.0	0.0	700.2	0.0
25	1884.7	0.0	0.0	40.0	240.1	0.0
26	98.9	2198.8	0.0	0.0	0.0	0.0
27	532.8	4127.1	0.0	0.0	0.0	0.0
28	1604.5	3586.1	0.0	0.0	0.0	0.0
29	1787.3	3980.7	0.0	0.0	0.0	0.0
30	725.5	347.0	0.0	60.0	0.0	0.0
31		3545.8		0.0	0.0	0.0

ORIGINAL PAGE 13
OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/13/82

COMPUTED DAILY RUNOFF FOR ZONE 3

DAY	APRIL COMPUTED RUNOFF CFS	MAY COMPUTED RUNOFF CFS	JUNE COMPUTED RUNOFF CFS	JULY COMPUTED RUNOFF CFS	AUGUST COMPUTED RUNOFF CFS	SEPTEMBER COMPUTED RUNOFF CFS
1	0.0	0.0	0.0	955.0	759.4	0.0
2	0.0	0.0	0.0	817.8	0.0	0.0
3	0.0	30.4	2844.8	522.1	0.0	0.0
4	0.0	691.9	7847.5	575.7	1518.8	0.0
5	0.0	131.6	8313.1	419.0	506.3	0.0
6	0.0	0.0	8309.4	488.3	0.0	1265.7
7	0.0	941.7	8131.0	782.4	759.4	0.0
8	0.0	604.1	17787.0	431.9	1139.1	1265.7
9	0.0	1096.9	20520.9	362.4	0.0	2531.3
10	0.0	1977.8	12632.8	389.5	884.0	3543.8
11	0.0	2217.4	11910.5	338.9	0.0	0.0
12	0.0	0.0	5689.8	258.5	253.1	0.0
13	0.0	0.0	5948.4	728.7	759.4	0.0
14	0.0	1566.0	4819.6	97.3	1518.8	0.0
15	0.0	0.0	2116.6	53.5	0.0	0.0
16	0.0	0.0	1287.1	5.9	0.0	0.0
17	0.0	3504.5	2126.3	0.0	632.8	0.0
18	0.0	0.0	1935.8	0.0	0.0	0.0
19	0.0	157.0	2612.2	253.1	0.0	0.0
20	442.1	2820.2	1139.9	0.0	0.0	0.0
21	1447.9	5137.9	1110.4	0.0	0.0	0.0
22	742.5	4966.3	1621.4	0.0	4682.9	0.0
23	0.0	1784.6	1464.9	0.0	2531.3	0.0
24	0.0	0.0	1522.6	0.0	2404.8	0.0
25	1957.6	0.0	1600.8	0.0	0.0	0.0
26	0.0	0.0	1796.3	0.0	0.0	0.0
27	0.0	234.4	1643.5	0.0	0.0	0.0
28	0.0	0.0	1345.3	0.0	0.0	0.0
29	803.3	230.7	1554.4	0.0	0.0	0.0
30	0.0	0.0	1948.0	0.0	0.0	0.0
31		0.0		506.3		

ORIGINAL PAGE IS
OF POOR QUALITY

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.

THE RUN IS FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/13/82

DAY	STREAMFLOW FOR APRIL			STREAMFLOW FOR MAY			STREAMFLOW FOR JUNE			STREAMFLOW FOR JULY			STREAMFLOW FOR AUGUST			STREAMFLOW FOR SEPTEMBER		
	COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS		COMPUTED CFS	ACTUAL CFS	
1	217.	195.		1772.	1213.		4386.	4465.		3450.	3129.		483.	560.		664.	366.	
2	207.	243.		1716.	1093.		4239.	4358.		3219.	3010.		499.	509.		621.	380.	
3	198.	225.		1676.	1097.		4215.	4633.		2996.	2826.		491.	615.		582.	349.	
4	189.	247.		1739.	1248.		4627.	5102.		2776.	2559.		487.	529.		545.	389.	
5	186.	266.		1788.	1414.		5469.	5709.		2579.	2268.		540.	496.		512.	363.	
6	207.	283.		1812.	1533.		6326.	6094.		2393.	2203.		546.	470.		496.	312.	
7	227.	288.		1874.	1948.		7143.	5907.		2253.	1938.		522.	457.		527.	340.	
8	216.	255.		2051.	2262.		8048.	5811.		2194.	2049.		545.	476.		512.	355.	
9	208.	284.		2088.	2310.		9942.	6981.		2044.	1866.		585.	490.		582.	361.	
10	218.	306.		2154.	2052.		11799.	7633.		1905.	1755.		560.	434.		739.	623.	
11	268.	334.		2343.	2011.		12587.	7674.		1780.	1648.		570.	416.		921.	1641.	
12	259.	288.		2506.	1889.		13004.	7602.		1662.	1474.		542.	397.		871.	974.	
13	246.	288.		2306.	1581.		12695.	7271.		1562.	1510.		531.	372.		811.	743.	
14	246.	305.		2188.	1528.		12294.	6575.		1505.	1456.		555.	447.		757.	644.	
15	301.	375.		2316.	1569.		11406.	6023.		1394.	1323.		597.	493.		711.	595.	
16	391.	430.		2266.	1499.		10360.	5564.		1290.	1171.		559.	491.		664.	536.	
17	422.	483.		2568.	1529.		9388.	5322.		1193.	989.		533.	422.		621.	449.	
18	482.	554.		3013.	1554.		8603.	5510.		1104.	909.		531.	396.		582.	436.	
19	585.	684.		3052.	1574.		7909.	5596.		1027.	842.		499.	366.		546.	406.	
20	752.	853.		3324.	1923.		7323.	5205.		968.	910.		469.	393.		512.	370.	
21	1010.	983.		4014.	2522.		6698.	4733.		899.	897.		441.	323.		481.	359.	
22	1329.	1105.		4927.	3443.		6203.	4519.		838.	770.		474.	262.		453.	353.	
23	1558.	1458.		5744.	4257.		5737.	4505.		784.	729.		732.	431.		426.	333.	
24	1620.	1240.		5860.	4555.		5312.	4552.		731.	811.		936.	841.		402.	325.	
25	1640.	995.		5616.	3811.		4940.	4358.		683.	784.		1074.	743.		379.	320.	
26	1802.	903.		5101.	3368.		4619.	4202.		642.	701.		1019.	621.		358.	317.	
27	1698.	858.		4859.	3382.		4344.	4107.		601.	679.		946.	541.		339.	298.	
28	1660.	959.		4796.	3636.		4081.	3903.		563.	582.		879.	486.		320.	288.	
29	1723.	1171.		4691.	3959.		3827.	3467.		528.	510.		818.	453.		304.	293.	
30	1810.	1311.		4624.	4111.		3623.	3134.		497.	729.		762.	334.		288.	300.	
31				4491.	4292.					478.	426.		711.	335.				

RANGO/MARTINEC MODEL VERSION RCI-1.3 RUN FOR RIO GRANDE RIVER NEAR DELNORTE -- DRAINAGE AREA 1320 SQ.MI.
SUMMARY OF THE MODEL RUN FOR THE YEAR OF 1980 RUN OF MODEL MADE 4/13/82

NASH-SUTCLIFFE GOODNESS OF FIT METHOD - NSR#2 = 0.5656

ACTUAL SEASON VOLUME = 324717.000 CFS-DAYS

COMPUTED SEASON VOLUME = 424797.875 CFS-DAYS

SEASONAL DIFFERENCE IN PERCENT = 23.56